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THE AMERICAN BEE JOURNAL

OLDEST BEE-PAPER IN AMERICA

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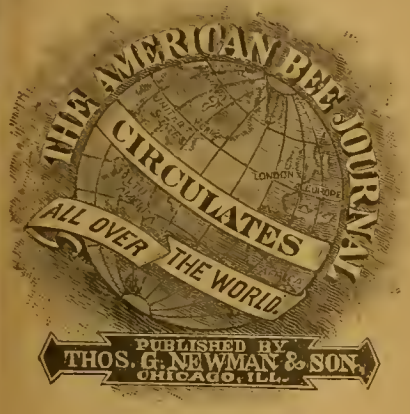

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Topics Presented in This Number.

Apicultural Patents 8
Bee-Cellar Ventilators, etc..... 11
Bees Did Fairly Well 12
Bee-Keepers' Union 7
Bee-Keeping in Alabama..... 11
Bee-Sting Kills a Lady 5
Biographical—Prof. A. J. Cook 5
Blessings of a Poor Season..... 7
Contraction of the Brood-Nest 9
Crossing Races of Bees..... 12
Experience with Bees, etc..... 12
Experiments 9
Feeding and Uniting Colonies 10
Fine Fall for Bees..... 11
Fine Weather for Bees 11
Flowers that Bloom but have no Nectar ... 6
Good Prospects for 1889..... 11
Lessons of the Past Season..... 7
Letter box (as indicated below) 11

N. W. Afflerbaugh,	Samuel King, Jr.,
W. H. Andrews,	G. E. T. Kyber,
A. C. Balch,	R. A. Rosser,
John Booth,	George Shaler,
J. E. Brooks,	Alex. Sherington,
Edwin Bump,	C. Theilmann,
George Eidemiller,	S. L. Watkins,
A. J. Fisher,	N. M. Woodman,
Louis Gerhart,	Wm. C. Wolcott,
W. H. Graves,	W. T. Zink.
I. J. Heaton,	

Melissa—How Far Bees Fly 12
Michigan State Convention Report 7
New Bee-Books 4
New Year Greetings..... 4
Not a Pound of Honey..... 11
No Snow Yet, etc 12
Open-Side Sections..... 11
Packing Hives with Sawdust... 12
Prevention of Swarming..... 9
Producing Extracted Honey..... 9
Prospects for White Clover..... 11
Reading Bee-Literature in Winter..... 9
Rearing Brood in December 12
Report for 1888 11
Results of the Season 11
Reversing Brood-Combs.... 9
Scientific Legerdemain 4
Scraping Propolis from Sections..... 6
Season of 1888 in Maine..... 10
Stands at the Head..... 11
Swarming-Out, etc..... 12
Uniting Colonies, etc 11
Ups and Downs of Bee-Culture..... 12
Upward Ventilation in Hives 10
Use of Honey-Boards..... 9
Who Keeps Bees?..... 5
Width of Top-Bars—Honey-Boards..... 8
Willing to Try Again 12

To Correspondents.

Our Club Rates are: $1.90 for two copies (to the same or different post-offices); and for THREE or more copies, 90 cents each.

The Bee Journal is sent to subscribers until an explicit order is received by the publishers for its discontinuance, and the payment of all arrearages is made.

Sample Copies of the BEE JOURNAL will be sent FREE upon application. Any one getting up a club, can have Sample Copies sent to those they desire to interview, by sending the names to this office; or we we will send them all to the agent.

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Never Send Silver in letters. It will wear holes in the envelope, or may be stolen.

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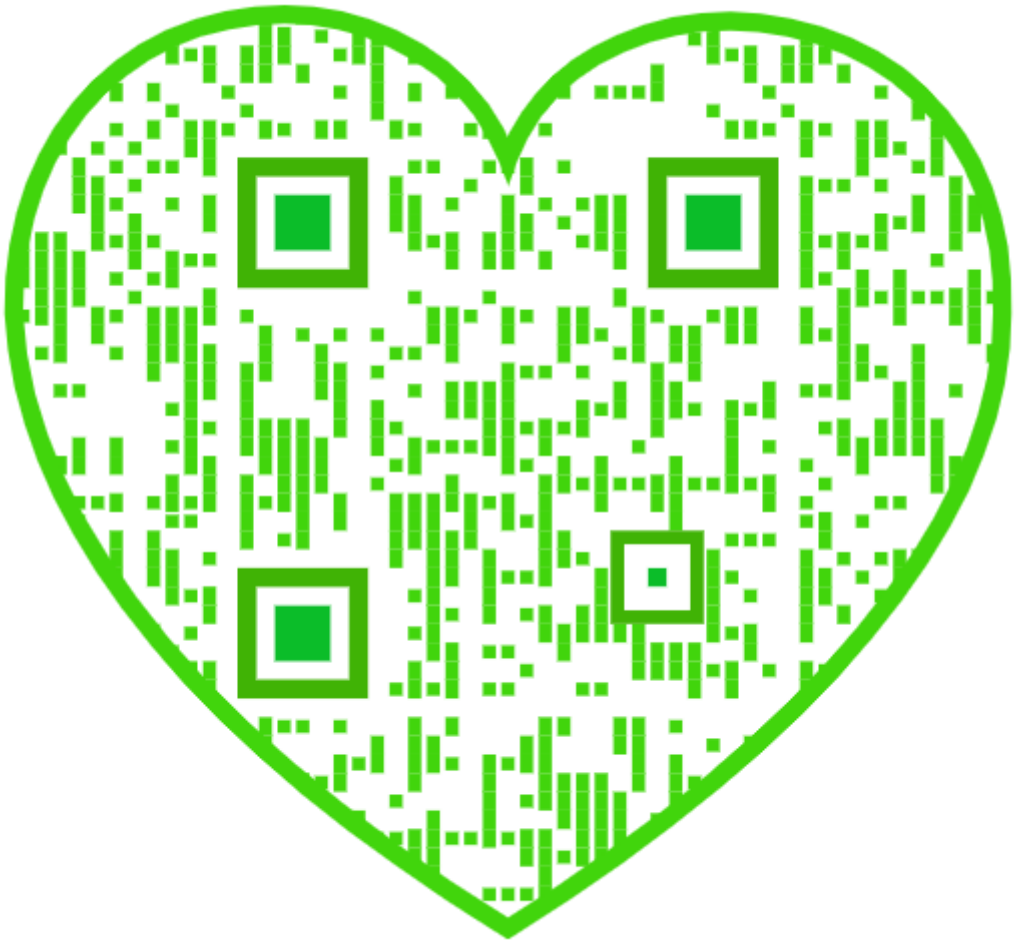
Advertisements for the next BEE JOURNAL must reach this office by the Saturday of the previous week.



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☞ A few copies of the old edition can be supplied at **$1.25** per copy.

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A B C of Bee-Culture, by A. I. ROOT.—This is a cyclopædia of everything pertaining to the care of the Honey-bee, and is valuable to the more advanced bee-keeper, as well as to the beginner. It contains facts gleaned from the experience of thousands of bee-keepers, all over America. Price, cloth binding, **$1.25**; paper, **$1.**

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Bee-Pasturage a Necessity, by THOS. G. NEWMAN.—Progressive views, suggesting what and how to plant. It is a chapter from "Bees and Honey."—Price, 10 cts.

Swarming, Dividing and Feeding.—Hints to Beginners, by THOMAS G. NEWMAN. A chapter from "Bees and Honey."—Price, 5 cts.

Bees in Winter, by THOS. G. NEWMAN.—Chaff-Packing, Bee Houses and Cellars. This is a chapter from "Bees and Honey."—Price, 5 cts.

The Production of Comb Honey, by W. Z. HUTCHINSON.—It discusses the use of Comb Foundation—when, where and how to use it, etc. Price, 25 cents.

Moore's Universal Assistant, and Complete Mechanic.—This book contains 1,016 pages of over a million industrial facts, calculations, processes, trade secrets, legal forms, items of business, etc., of vast utility to every farmer, mechanic and business man. This is a veritable treasury of useful knowledge, and well "worth its weight in gold" to any mechanic, business man, and farmer. Price, bound in cloth, $2.50.

How to Propagate and Grow Fruit, by CHAS. A. GREEN.—It contains over 50 illustrations and two large, colored fruit plates. It tells how to propagate strawberries, raspberries, blackberries, currants, gooseberries, grapes, quinces, peaches, apricots, plums, cherries, pears and apples, with illustrations showing how to bud, graft, and propagate from layers, etc., with full instructions for grafting the grape. Price, 25 cents.

A B C of Carp-Culture, by MILTON P. PIERCE.—It explains the simplest, cheapest and most effective system of carp-culture, and being written by the Secretary of the American Carp-Cultural Association, it cannot fail to be of inestimable value to all interested in the fascinating avocation of carp-culture. 100 pages. Price, 40 cts.

A B C of Potato-Culture, by T. B. TERRY.—It tells how to grow potatoes in the largest quantity, and of the finest quality, with the least expenditure of time and labor. It is not only valuable to potato-growers, but a great part of it applies to the management of almost any crop on the farm, especially to the preparation of the soil, manures, etc. Price, 40 cents.

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Western World Guide and Hand-Book.—It contains 288 pages of useful information for home-seekers or tourists, capitalists or laborers. A vast amount of information not to be found elsewhere. Price, 50 cents.

Practical Turkey Rearing, by FANNY FIELD, the most experienced turkey-rearer in America. Written expressly for those who are interested in making the business profitable. All turkey-rearers should get it. Price, 25 cents.

The Hive I Use, by G. M. DOOLITTLE.—It details his management of Bees, and minutely describes his methods for the production and care of comb Honey; management of weak colonies; how to control swarming; how to get the largest yield of honey, etc. Price, 5 cents.

Simmins Non-Swarming System, as applied to hives in present use, by S. SIMMINS, of England.—The author claims that it will inaugurate a new era in modern bee-keeping, and states that it is based upon purely natural principles, and is the only system that can be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the much-desired result—a total absence of any desire to swarm. 64 pages. Price, 50 cents.

Foul Brood—Its Cause and Cure, by PROF. FRANK R. CHESHIRE, of London, England.—This describes his experiments with the use of Phenol for the cure of diseases of Bees. It is the work of a master mind, and full of very interesting matter. Price, 10 cents.

Dr. Foote's Hand-Book of Health.—It contains hints and information of the utmost importance concerning eating, drinking, dressing, sleeping, bathing, working, etc.

It tells how to cure boils, burns, chilblains, corns, coughs, cholera, diarrhea, dysentery, diphtheria, dyspepsia, ear-ache, felons, headache, hiccough, hoarseness, itching, pimples, piles, rheumatism, ringworm, sore eyes, sore mouth, sore throat, sunstroke, stings and insect bites, toothache, ulcers, whooping cough, worms, etc. Price, 25 cents.

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☞ If you want it sent by mail, add 20 cents for postage.

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Poulterer's Guide, by C. J. WARD.—It tell how to treat diseases of poultry, etc. Every poultry-producer should have it. Price, 25 cents.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Jan. 5, 1889. No. 1.

EDITORIAL BUZZINGS.

Help a little! Help a little!
Neighbor, lend a helping hand,
To thy heavy-laden brother,
That he may assisted stand.
Pass not by, like priest or Levite,
Heedless of thy fellow man;
But, with heart and arms employed,
Be the Good Samaritan.

1889—the last in the decade of eighties has come to welcome us! We have now entered upon the duties and responsibilities which it presents. Let us each endeavor to do well our part, so that at its close we may not have to look back with regret upon the work we have done!

We are Pleased to notice that Prof. Cook has been again elected President of the "Michigan State Bee-Keepers' Association."

Flowers all the way from New Orleans, La., perfumed our desk, by the kindness of our friend, J. W. Winder, last Saturday. They are sweet-scented, richly colored, and duly appreciated.

Let Every One who believes in defending "our pursuit" against the attacks of the misguided and preverse, join the National Bee-Keepers' Union, by sending a dollar to this office. It only costs a dollar a year, and every bee-keeper should be a member.

Snow around the hives is no detriment. It is porous, and enough air can penetrate it for ventilation in winter. When it forms ice at the entrance, then it must be cleaned away. An examination during and after a thaw is very necessary.

One Day Later.—Heretofore we have closed the forms of the BEE JOURNAL on Saturday, and the printing was commenced on Monday morning. This arrangement often excluded news and announcements of importance which came to hand on Monday, two days later. To prevent this, in the future, we shall keep the forms of type open Monday forenoon; the press will then be started, and the folding, stitching, trimming and mailing will all be completed by Wednesday at 5 p.m., when the JOURNAL will be put into the post-office—*just one day later than usual*. We give this notice to prevent disappointment to those who have been getting their copies on a particular train and day—look for it 24 hours later, and you will not be disappointed. This gives us the advantage of *two days*, while the mailing is delayed only 24 hours.

We Appreciate, even though we cannot give an individual reply to the multitude of kind letters we are daily receiving, which express emphatic approval of the work we are doing in the defense of the pursuit of bee-keeping. This work, especially that devolving upon us in the management of the "National Bee-Keepers' Union," is often difficult and intricate, requiring us to face almost incredible obstacles. It is a consolation, however, to know that so far it has been successfully accomplished, without fee or reward, except in the satisfaction of knowing that we have done our duty faithfully and fearlessly.

The Fifteen Years we have spent in guiding the destinies of the AMERICAN BEE JOURNAL seem but a few short months now that they are past. It is a happy reflection to know that its influence and reputation is *second to none* in the apicultural world. Now its weekly visits are *welcomed* in thousands of homes, and its coming is watched for—aye, "longed for" by apiarists in all parts of the world! But who may be its conductor, and who its readers 15 years hence, no one can tell!

The Record and Character of the AMERICAN BEE JOURNAL in the past, is its guaranty for the future. It will "keep abreast of the times," present the apicultural news of the day, and record all improvements and inventions in our ever-advancing pursuit, as soon as they come to light. It is published in the interest of bee-keepers at large, and will lose no opportunity presented to sustain and defend their rights and privileges.

The American Bee Journal for the coming year will be an improvement over all the past years, inasmuch as the experiences of the past will be used to enhance its value, power and usefulness for the future. Sample copies will be sent free to any one who intends to try to get up a club. Now is the time for work.

Dr. W. G. Phelps, of Galena, Md., has "passed to the peaceful harbor on the other shore," after a brief illness. The doctor was well known as a writer for the press—having for years conducted the apicultural departments of the *Practical Farmer* and several other papers, as well as being a correspondent for the AMERICAN BEE JOURNAL. May his eternity be peaceful and happy.

May we not with confidence expect that bee-culturists generally will show us their appreciation by adding to the subscription list of the AMERICAN BEE JOURNAL for 1889, several thousands of new readers? This will secure for us a larger field of usefulness, as well as supply us with the "sinews of war," to accomplish more for the benefit of apiculture and its devotees. Let us work together for this object.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

Surprising.—C. H. Dibbern, of Milan, Ills., on Dec. 21, 1888, wrote thus when sending his dues for the Union for 1889:

It is surprising that not more bee-keepers are willing to bear their share of the burden of defending our pursuit.

It is not only surprising, but a lasting disgrace to them.

How Did You Like the full and complete index given last week? The name of the writer was given after each subject, making it doubly valuable to those who keep them for binding. If you have lost any numbers, we will send duplicates if sent for at once, before all the numbers are gone.

Every Day the business letters that come to this office are fully attended to and finally disposed of—none are left until the next day, except those in which the writer has omitted either name or post-office address. We endeavor to be prompt and accurate, and if our subscribers will practice the same virtues, more than half of the little annoyances that happen will be done away with.

We Invite Our Friends to sustain and extend the usefulness of the AMERICAN BEE JOURNAL, which has demonstrated for over a quarter of a Century, its ability to sustain and promote their interests! We make common cause with every bee-keeper, and in turn, every bee-keeper should feel it a *duty* as well as a *privilege* to assist us in every laudable undertaking.

New Year Greetings.

Rejoice, my fellow-soldier ! for another long campaign
Is ended, and its dangers have not been met in vain ;
Some enemies are driven back, some ramparts overthrown ;
Some earnests given that victory at length shall be our own !

Rejoice, my fellow-travelers ! for another year is past !
The heat and burden of the day will not forever last ;
And if some ties are breaking here, of earthly hope and love,
More sweet are the attractions of the better land above.

The light that shone through all the past will still our steps attend,
The Guide who led us hitherto will lead us to the end ;
The distant view is brightening—with fewer clouds between,
The golden streets are gleaming now, the pearly gates are seen.

GLEAMS OF NEWS.

Fire Has Destroyed the first edition of the "Revised Langstroth" book, which was to have been delivered last week. The following from Dadant & Son will explain the matter :

A fire has destroyed the first installment of the "Revised Langstroth," in the bookbindery of Becktold & Co., St. Louis, on the night of the 15th inst. We were called to St. Louis by a telegram, but found, on arrival, that they had already handed the job to another firm. This fire will cause a delay of about three weeks.

There were some 400 publications destroyed by the fire, and the pile of half burnt paper that was thrown out of the windows last Wednesday, filled the street up to the second story.

We regret to hear of this accident and consequent delay—but of course it could not have been foreseen or avoided. It is fortunate that the books were insured, and this shows much thoughtfulness.

The excellent engraving on the next page is from this book, by favor of the publishers. All will recognize it as the familiar face of our friend, Prof. A. J. Cook, of the Michigan State Agricultural College.

Those who have ordered this new book will be obliged to wait until the middle of this month for its arrival. All orders will be filled as soon as possible.

The "Rich" Lawsuit is still pending in Hobart, N. Y., and Mr. Rich expects it to be reached in the general term of the Superior Court. In a letter dated Dec. 25, 1888, he says :

The Union is doing a good work, and why more do not join is a mystery.

It is strange, but the failures of the honey crops for the past three or four years has much to do with it. We hope for a pleasant change next year.

Scientific Legerdemain.— Under the above heading, the *Table Talk* for December prints the following, as a supplement to the Wiley lie, about the making of comb and filling it with glucose. It says :

In these days of adulteration

"When all things are not what they seem,
And everything is something else,"

it is no more miraculous that olive oil should be squeezed out of a peanut, than that Java coffee should be ground out of the chicory root, or that black pepper be only another name for pulverized cocoanut shells. Science is making such rapid strides toward helping us in our gastronomic needs, that Nature herself must get out of the way, or she will be run over.

Even the poor honey-bee was accused, not of laziness, for that would have been too palpable an injustice, but of being too slow, and spending too much time over the clover heads.

"I will remedy all that," said Science.

And she did. Shutting up the bees, she knocked the head out of a barrel of glucose and told them to go to work and help themselves, which they did faithfully. Their long journeys to and from the flowering fields being done away with, they had nothing to interfere with their getting down to actual business. The scheme was a success, for the honey was piled into the combs in treble abundance, and in one-third the usual time.

And yet Science was not satisfied. Greedily she put her wits to work. "What is the use of going to the expense of buying bees ? I can make the comb quicker and quite as well as they ; and as for the honey—well, glucose is honey !"

And so the occupation of the honey-bee being gone, so far as it had any hand in what is known as the "honey of commerce," it now confines itself in a small way to home manufacture, samples of which, if the reader particularly wants, he must particularly search for.

Mr. L. W. Wentworth, of Searsport, Me., sent us the above on Dec. 24, 1888, and remarks as follows concerning it :

I began keeping bees three years ago for pleasure and profit. I have had the pleasure, and lots of it—but the profit I have failed to get. How different it might have been, if I had only known the wonderful way of making honey mentioned in the *Table Talk* which I send you.

What does it matter to the sensational reporters, whether Prof. Wiley has admitted the untruthfulness of the "story" started by him as "a scientific pleasantry" or not ! They neither know nor care anything about it. They are after a sensation, and must have it. They state as if it were truth, that "the occupation of the honey-bee is gone," and that genuine honey is so scarce on the market that it must be searched for ! The fact is that there is not a pound of *manufactured* comb honey to be found. We dare *Table Talk* to produce it ! It ought to be ashamed to publish such falsehoods !

The Farmer's Institute for the Eighteenth Congressional District of Illinois is to be held at Greenville, Bond county, on Jan. 15 and 16, 1889. A leeture is to be given upon "Bee-Culture" during the sessions, as we are informed by the Secretary, W. E. Robinson.

New Bee-Books.—Mrs. L. Harrison thus notices in the *Prairie Farmer* the new edition of "A B C of Bee-Culture," by our friend A. I. Root, in these words :

The wise man said truly : "Of making many books there is no end ;" and had he lived in our day, he might have said that in the making of bee-books there was no end.

The "A B C of Bee-Culture" is just the thing for beginners, grandpa and the children who will climb up on his chair and peer over his shoulder to see the pictures.

The busy bee-keeper, who is all hurry and drive, can quickly find what thousands of bee-keepers say on any subject, for it is gleaned from them all.

In the back part of the book are twenty-one short biographies of noted bee-keepers of this country, with engravings of each, led by the father, L. L. Langstroth, while his friend and co-worker, Moses Quinby, follows in his wake.

The Programme of the Maine Bee-Convention is on our desk, and presents many interesting topics. Here are some of the themes : "Bees and Fruit," by E. P. Churchill ; "Experience in Apiculture," by I. F. Plummer ; "When and how to prepare bees for winter," by F. F. Graves ; "Hints and Suggestions," by Mrs. W. M. Hinkley ; "Retrospective View," by John Reynolds ; "The production of comb honey," by L. F. Abbott, editor of the Lewiston *Journal* ; and "Creating a Home Market," by Mrs. W. A. Crockett. The convention will be held in the Town Hall, Brunswick, Maine, on Jan. 8–10, 1889. All the bee-keepers in Maine should be there.

Mrs. A. E. Manum, of Bristol, Vt., died suddenly in the City Hostipal, Boston, on Dec. 11, 1888, aged 48 years and 11 months. The Bristol *Herald* of last week contains the following notice :

In the sudden and unexpected transition of Mrs. Manum to the higher life, a loving, tender-hearted wife and mother, a kind and sympathizing friend and neighbor is taken from our midst. We mourn her loss, but rejoice that she is free from pain and suffering, and with smiling joy will meet us when we, too, shall lay aside the mortal and cross to the other shore....The remains were followed to their last resting place by a large number of relatives and friends on Friday.

The BEE JOURNAL tenders its condolence to Brother Manum in this hour of bereavement.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. It can be obtained at this office.

When you send us your subscription for 1889, please send the subscriptions of your neighboring bee-keepers, and to pay you for your trouble, we will send you, as a premium, anything you select from our Catalogue to the value of 25 cents on each dollar subscription sent.

BIOGRAPHICAL.

PROF. A. J. COOK.

Albert J. Cook was born on August 30, 1842, at Owosso, Mich. Those who are intimately acquainted with the man will not be surprised to learn that his parents were most thoroughly upright Christians. The daily reading of the Bible, with comments by the father, re-enforced by the constant example of a chaste, honest, and industrious daily life, left its impress for life upon the character of the son.

At the age of 15 years he entered Michigan Agricultural College, where he graduated at the age of 20, having

Prof. A. J. Cook, of Agricultural College, Michigan.

been obliged during his course to suffer the sharp disappointment of suspending study a whole year on account of sickness, his health always having been rather delicate during his earlier years.

Upon his graduation he went, on account of his poor health, to California, where for 3 years he labored very successfully as a teacher. He then studied a portion of 2 years at Harvard University and Harvard Medical College, with Agassiz, Hazen, and Dr. Oliver Wendell Holmes, as teachers.

In 1866 he was appointed instructor at Michigan Agricultural College, and in 1868 Professor of Entomology and Zoology in the same college.

He has done, and is doing, a work unique in character, for he instructs the students, not only about insects in general, but about bees in particular. Every student that graduates goes all over the theory of bees, studies the bee structurally from tip of the tongue to tip of the sting, and goes through with all the manipulations of the apiary—that is, if there is any honey to manipulate; handles the bees, clips queens' wings, prepares and puts on sections, extracts, etc. Probably in no other institution in the country, if in the world, is this done.

Prof. Cook is an active and influential member of the North American Bee-Keepers' Association, of which he has been President; was one of the originators of the Michigan State Bee-Keepers' Association, of which he was President for a number of years, and helped start the State Horticultural Society, being a member of its Board for some years. He is widely known as a writer. His "Manual of the Apiary" has reached a sale of 14,000 copies, and "Injurious Insects of Michigan," 3,000 copies. He is also the author of "Maple Sugar and the Sugar-Bush," of which 5,000 copies have been published. He has written much for bee-papers, as also for the general press. He is a clear, practical writer, with a happy style.

In the battle waged against insect-foes, he has rendered valuable service. Remedies which he first advised are now common, and he was probably the first to demonstrate the efficacy and safety of Paris green for codlin moth.

Prof. Cook is of average height and weight, a charming conversationalist, and an intensely interesting lecturer. His very pleasant manner is only a fair index of a genial and loving spirit that, in an unusual degree, strives to put the best construction on the conduct and motives of every one, and throws a mantle of charity over their faults. His spirit of kindness extends to the brute creation; and on his farm, in which he is much interested, he has some fine-blooded stock; and in attempting to engage a hand to work upon the farm, the writer once heard him stipulate as essential that the employee must be kind to animals, and free from the use of liquor, tobacco, and profane language.

Prof. Cook is a great home lover, and proud of his wife and two children. An earnest Christian worker, he has for a number of years done a most important work in conducting a Sabbath-school class containing thirty or forty College students. It is to be regretted that excessive work has told unpleasantly on his health.

[The foregoing biographical sketch is taken from "A B C of Bee-Culture;" and the engraving is from "Langstroth Revised," by favor of the publishers, Ch. Dadant & Son.—ED.]

Who Keeps Bees?—Looking over the large number of letters received in every mail, it is found that an answer to the above question would include: specialists who have no other business; farmers, gardeners, fruit-growers, stock raisers, carpenters, mechanics, manufacturers, poultry raisers, merchants, tailors, railway men, teachers, surveyors, ministers, lawyers, physicians, etc., etc. In fact, it would be far easier to name occupations not represented than those that are. Women, as in all other occupations, are taking a lively and active interest, and making quite a success. —*Western Bee-Keeper.*

A Bee Sting lately caused the death of a promising young lady in England. The Pall Mall *Gazette* thus notices the calamity:

Miss Ella Baker, youngest daughter of Mr. T. Baker, of Kingscote, was stung under the eye by a bee in the garden a few days ago. She treated the matter lightly, and suffered no pain after the customary simple antidote had been applied, saying that she had been stung before; the swelling would run its course and go down again, and she continued to be quite cheerful down to 8:30 on the 14th, when she fell asleep on the sofa. At 9:15 she suddenly woke up in a convulsive fit, and died from syncope within a minute. Miss Baker, who was 29 years of age, was the author of "Bertram de Drumont," and other tales for the young people; also "Stories from Old History," "The Sovereigns of England," "Songs of the Seasons," and other fugitive pieces.

Now is the time to sell the honey.

QUERIES & REPLIES.

Scraping Propolis or Wax from Sections of Honey.

Written for the American Bee Journal

Query 601.—Is it necessary, or desirable, to scrape by hand all sections before putting the honey on the market? that is, if there is propolis or wax on the outside.—E.

Yes.—C. C. MILLER.

It is desirable.—DADANT & SON.

It is at least desirable.—R. L. TAYLOR.

Yes, it is practically necessary.—JAMES HEDDON.

To be sure, highly so.—J. M. HAMBAUGH.

It is desirable— not always necessary.—M. MAHIN.

Certainly it is. Scraping sometimes does not tend to piety, either.—J. M. SHUCK.

It is desirable. Have your goods look as neatly as possible.—MRS. L. HARRISON.

No; excepting, perhaps, a few of the worst ones. It does not pay for the labor necessary in doing it.—WILL M. BARNUM.

Yes, have all sections clean. Cleanliness is next to honesty in selling honey.—A. J. COOK.

I always scrape them if they are in the condition you speak of.—G. M. DOOLITTLE.

It is both necessary and desirable, if you wish your sections to have a "clean face," and your honey to look inviting.—J. P. H. BROWN.

Be *sure* to put honey on the market in the best possible condition, even if the sections should require sand-papering.—A. B. MASON.

There is always a little (more or less) propolis on the edges, and that ought to be scraped before putting them on the market.—P. L. VIALLON.

YES. Do not neglect this important part. Propolis is all right in its place, but it is "matter out of place" on a section.—H. D. CUTTING.

It is very desirable, in my estimation, to have the sections nice and clean when they are offered for sale. We scrape off every particle of glue and wax that may adhere to the sections, as we crate them.—G. W. DEMAREE.

It is certainly advisable to clean all propolis and dirt from sections before putting them on the market. The extra trouble will be well paid for, in the extra price obtained.—J. E. POND.

That is the only way I know of. I would be glad of a remedy if it does not make more work than the scraping. They look so much more neat after being thoroughly cleaned, that I always do it.—EUGENE SECOR.

Yes, by all means; but if your surplus arrangement is "all right," there should never be any propolis on the outside of sections. In this case, prevention is better than cure.—C. H. DIBBERN.

Yes; it is both desirable and necessary, if you wish to have the reputation of doing good work in marketing honey, and obtain the highest prices for the product.—THE EDITOR.

Do Flowers Bloom Profusely and have no Nectar?

Written for the American Bee Journal

Query 602.—1. Do flowers, such as white clover for instance, sometimes bloom profusely, and fail to secrete nectar? 2. If so, does white clover, in a good season, yield sufficient to be plainly visible, when the heads are pulled to pieces? This has been an extraordinary year with us for vegetation, and the ground has been covered for four months with the most abundant white clover bloom, yet my bees only averaged 36 pounds of extracted honey per colony, and swarming was prevented?—British Columbia.

1. Yes. 2. Yes.—P. L. VIALLON.

1. Yes. 2. I never saw it that way. —G. M. DOOLITTLE.

1. Yes. 2. I have seen it yield so as to be visible.—A. B. MASON.

1. Yes. 2. Yes it can be seen, but not as easily as in linden.—A. J. COOK.

1. Yes. 2. Not usually, unless the crop is very abundant.—DADANT & SON.

1. I think that they do. 2. I never saw it; still I never looked much.—C. C. MILLER.

1. Yes. 2. Yes, by pressing on the thumb nail each separate piece.—H. D. CUTTING.

1. Yes, sir. 2. I have frequently seen honey, in good seasons, in white clover when the heads were pulled apart.—J. P. H. BROWN.

1. Yes. 2. Yes; 36 pounds per colony is not a failure, by any means.— J. M. SHUCK.

1. Yes, in some localities. 2. Yes, sometimes. I have known clover to yield pretty well, when one needed a magnifying glass to see any nectar in the blossoms.—JAMES HEDDON.

1. The secretion of nectar varies greatly in different seasons. 2. I have not examined the white clover to ascertain whether the nectar is visible, but I presume it is.—M. MAHIN.

1. Yes. 2. No, not in my experience. The statement made in the question, is a complete answer thereto in your own experience.—J. E. POND.

1. Yes, I have seen the hillsides and pastures white with clover bloom, and the bees in a starving condition. 2. Yes.—J. M. HAMBAUGH.

1. They certainly do. 2. I have never seen the nectar plainly visible in white clover, though I have many times looked for it. It is much more abundant in red clover. — EUGENE SECOR.

1. Yes. 2. Yes, if you split a flowret and hold it so the light strikes it right, with good eyesight you may see the tiny drop at the lower end where the seed forms. You may also taste it with the tip of the tongue.—R. L. TAYLOR.

1. Yes. 2. It does, if a careful examination is made. You can readily tell when white clover is yielding well, by chewing the blossoms. The electric conditions of the atmosphere have much to do with the secretion of nectar in flowers.—MRS. L. HARRISON.

1. Yes, all flowers sometimes fail to yield honey. 2. I have never been able to see honey in white clover blossoms without a microscope. Your yield is about an average for the last season. —C. H. DIBBERN.

1. Yes. Two years ago I sowed, broadcast, about a peck of buckwheat directly in front of the apiary; while directly back of it, and nearly a mile away, was another patch nearly on top of a small mountain. The patch that I sowed bloomed profusely, but yielded no nectar whatever; while honey fairly poured in from the other field. Occurences of this kind are quite common. 2. That would not be a sure "proof." The honey might be there, and still not be visible to us.—WILL M. BARNUM.

1. According to my experience, yes. But white clover is the surest of all nectar-bearing plants. I have never known it to fail entirely when the bloom was abundant, but in one season, in all my experience. But it does not always yield equally well. 2. The nectar is at the bottoms of the tubers, and I have never been able to see much of it by dissecting the blossoms. It is not at all uncommon for flowers, no matter how profuse, to fail to yield nectar when the weather is unpropitious. Such has been my misfortune the past fall.—G. W. DEMAREE.

1. Oh, yes. It has been often demonstrated that sometimes flowers will bloom profusely and yet yield no nectar. 2. Yes; it may be seen by the aid of a glass. If an average of 36 pounds is regarded as anywhere near a failure, your ideas are very high.— THE EDITOR.

CORRESPONDENCE.

MICHIGAN.

Report of the Michigan State Convention.

Written for the American Bee Journal
BY W. Z. HUTCHINSON.

The Michigan State Bee-Keepers' Association held its 23rd annual meeting on Dec. 12 and 13, 1888, at the Business Men's parlors in the city of Jackson, Mich. The attendance was small, and there is, perhaps, more than one cause for it, but the principal one probably is the poor season. The Secretary wrote to about eighty bee-keepers, soliciting their attendance, and the burden of the replies was, "No honey, no money."

The convention was called to order by President Geo. E. Hilton, at 2:30 p.m.; the Secretary read the minutes of the last meeting, which were approved, and Mr. Hilton then delivered the following as the

President's Annual Address:

Again we find ourselves in convention assembled for the purpose of discussing the topics appertaining to our favorite pursuit. Many of us have had experiences the past year that will be of value to us as long as we are engaged in apiculture, and to those that come after us, of less experience.

In some respects, perhaps, there has never been so discouraging a season as the one just past. A few, perhaps, are engaged in bee-keeping for no other purpose than the pleasure they find in it, but a large majority of us have engaged in it because we thought that it paid, and have taken up the pursuit with a view of procuring our bread and butter in this way, with the assurance that we should have honey to spare to spread upon the same.

Lessons of the Past Season.

The past season has taught some of us the lesson, that it is not wise to carry all of our eggs to market in one basket; also, that mixed farming is more safe for the majority than are specialties. I think that for the past two or three years we have heard less of specialists in bee-keeping, and with my past experience in good and poor seasons, I cannot advise the masses to make bee-keeping a specialty.

But in looking over the past year, I see much to encourage us. Those who had any surplus honey at all, have been able to dispose of it at paying prices, yes even at exorbitant prices.

Who has heard of honey selling at 30 cents per pound, and the average price for the United States a trifle over 19 cents per pound in the middle of October? Why, the like has never been heard of since Adam Grimm made a fortune by keeping bees; but I prophesy that before March 1, 1889, there will be localities in the United States where a fancy article of comb honey will bring 50 cents per pound, and honey will never be so scarce but that a prime article will bring one-third more than a poor one, even though it be gathered from the same blossoms. This teaches us that the profits depend upon the bee-keeper, for if bees will store just as much honey in a nail-keg (which I doubt very much), it will not bring as much in the market as honey stored in beautiful white sections. But this season even the lower grades are going to be closed out at some price, and before another crop comes, we will be unable to get honey to make cough syrup for our babies.

Blessings of a Poor Season.

Then the past season has established paying prices; it has denuded the markets, and has forever downed that ghost, "manufactured honey." Is not that enough to pay for all our losses (or rather, for what we have not had to lose)? We start in next year with a clean market. There will be a demand everywhere, and it is the duty that every bee-keeper owes to himself, to retain this demand, which is easily accomplished by never sending a pound of honey to the large markets, until you have supplied your home and surrounding markets; these you can control, but as soon as you glut the large markets, you establish a ruinous market at home.

I had no trouble in selling comb honey at 20 cents per pound until several carloads were shipped into Grand Rapids, and sold at 10 cents; then our merchants learned that they could ship honey from Grand Rapids, and retail it at 15 cents, at a better profit than the commission I was paying them; and for the past four years, 15 cents has been our retail price, for in a small place it was very hard to raise the price, unless the market is entirely bare, or will be at the opening of another honey harvest.

The Fall Flow of Honey.

Then in addition to the prospects of good prices for next season, the bees as a rule have gone into winter quarters in excellent condition. The fall rains gave us a nice fall flow of honey, which caused the brood-nests to be well supplied with a good quality of honey, and many of us secured a little surplus. Since the season ended, the rains have continued, and the clover has a beautiful start for next season's crop. We need not lie awake at night fearing that we must contend with free-trade in sugar, because we have not.

I need not tell you that many changes have taken place, all in favor of the bee-keeper; and in all my experience in bee-keeping, I do not know when I have felt so much encouraged. I am sure that the darker hour is passing away, and in the future we can see the dawn of that morning of prosperity in bee-keeping. And now if "'tis not in mortals to command success," by the help of God let us deserve it; let every one go home from this convention with a determination to do better than he ever did before, not only for himself, but for mankind in general.

The Bee-Keepers' Union.

Permit me here to urge every member of this association to become a member of the Bee-Keepers' Union that has done so much for us all, and could do much more good were it properly supported. I am almost ashamed to say that out of 300,000 bee-keepers of North America, less than 400 are members of the Union!

International Bee-Association.

Before this convention closes I hope there will be some action taken in regard to the International Bee-Association. I should like to see the Michigan Bee-Keepers' Association represented at its next annual meeting, in an official manner, and I hope the matter will be thoroughly discussed as to the best manner of being represented.

I have made the assertion, that ours is *the* association of the Continent, and I believe that we are looked upon as at least one of the best bee-keepers' associations in this broad land of ours.

Now as we go to our several homes, at the close of this, the 23rd annual meeting, let each one resolve to do something for the elevation of our brother and sister bee-keepers, and let us be thankful,

"For all that God in mercy sends,
For health and children, home and friends,
For comfort in the time of need,
For every kindly word and deed,
For happy thoughts, and holy talk,
For guidance in our daily walk;
For beauty in this world of ours,
For verdant grass and lovely flowers,
For song of bird, and hum of bees,
For the refreshing summer breeze;
For the sweet sleep that comes with night,
For the returning morning light,
For the bright sun which shines on high,
For the stars glittering in the sky;
For these and everything we have and see,
Oh, Lord, our hearts we lift to thee—
For everyting give thanks."

GEO. E. HILTON.

Following the President's address was an essay by Mr. R. L. Taylor, of Lapeer, entitled,

Apicultural Patents.

Not very long since it was stated in one of our apicultural publications as an assumed fact, that bee-keepers had settled down to the opinion that no one should seek a patent on any invention pertaining to apiculture. I was astonished, and fell to remuinating on the characteristics of bee-keepers. I asked, what are the qualities possessed by them that entitle their business to be singled out and distinguished from all other occupations? for as a general rule, I take it that it is conceded that the patent laws are desirable and beneficial. Whence, then, the distinction? Is it because we are a worse class of men, and are more liable to use patent rights to impose upon others? I think we would resent that idea.

Is it because we are supposed to be more stupid, and therefore easily imposed upon by means of patent-rights? We would also, I think, quickly scout that notion. Is it because we are better men, both morally and intellectually, so that we to a man are not only ready and eager to accord to every one his right, but also have severally sufficient knowledge, acumen, time for investigation, and a judicial cast of mind to enable each one to determine what is the exact right? Then we as good, modest men should be the last to make the claim. I am at a loss for an adequate explanation, but the last supposition as being the more probable, suggested the following reflections:

A good man may, indeed, in some circumstances, properly say that he means right, and will do right as he sees it; but what an amazing amount of conceit must one be endowed with to enable him to proclaim that even when his own interests are involved, he is always able to discern and do the exact right; or, in other words, that he may safely be made to judge in his own case. Yet the whole moral patent idea is without other substantial support than this modest claim.

There is no principle of the common law better established, more salutary or more consistent with reason, than that a man may not be judge in his own case. This is sound, not because men are not upright, intelligent and fair, but because self interest can, as a rule, be relied upon to becloud the moral and intellectual faculties, not alone of other men, but ours—mine. The best men know best how frail they are in such a matter. The above rule was not made obligatory on the judges by king or parliament, they themselves established it.

The moral patent idea to be of use, must be put in force, and to do that, there must be provided some adequate method of arriving at correct decisions. But there can be none, from the very nature of the matter in its court of last resort a man sits as judge in his own case. From a tribunal thus constituted, we cannot do otherwise than expect not a little of corruption and injustice: and how much worse are the features of the matter when we consider that possibly sometime in the future, some one not strictly honest, may steal his way into the fraternity.

The very idea of a moral patent carries with it an admission to the fullest extent of the right of the inventor of an apicultural article, and that there is a debt due him from the one who uses the invention. Why should that one alone be singled out from all classes of creditors to be left to the tender mercies of interested men, for the payment of his claims? If he has an admitted right, what possible objection can there be to giving him legal protection in the enjoyment of it?

Is it not supremely impolitic, by withholding protection, to compel inventors, where the subject matter admits of it, to make a secret of their discoveries?

Again, in the granting of patents, the public stipulates that for the protection given, it shall have, as a recompense, after a term of years, a full right to the invention. What limit is proposed to the moral patent?

Finally, why should we withhold protection and justice on the plea that others contributed towards making the discovery, or that some other one would eventually have made it? All honor to the inventor, and all honor to the patentee, say I, but especially to the latter. It is an honor to be an inventor, but he may let his invention sleep—he may not know its value—may have but a faint conception of its possibilities. But to be a patentee is better; that means not only that a candle has been lighted, but that it has been taken from under the bushel. It implies not only an invention, but that the inventor has discovered its possibilities and value.

Long years before Columbus, the Norsemen found America, but their discovery slept. They rose to no proper conception of the importance of what they had done. We honor Columbus, because before he knew the land, he saw the glory of it.

Brethren, shall we not get our feet out of the miry clay of this moral patent-business, and place them upon substantial ground? Shall we not be willing to give inventors substantial honor, as well as empty glory?

R. L. Taylor.

Mr. Taylor's essay was discussed as follows:

James Heddon—I have advocated moral patents because of the strong feeling in the apicultural ranks against legal patents; but I agree entirely with Mr. T.

President Hilton—My views upon the patent questions have undergone quite a change of late. Heretofore my circulars have said, "Nothing patented." In the future this will be out. I truly believe that the fruits of mental labor should be protected.

Dr. N. L. Higbie—If I see anything that will enable me to secure any advantages, I shall invest in it, even if it is patented. The man who has labored mentally, deserves his reward.

H. D. Cutting—It has always seemed strange to me why bee-keepers should be prohibited, by public sentiment, from getting patents. If a man knows enough to invent something of value, let him patent it.

T. M. Cobb—Whether an article is of value depends, of course, upon its value; but I think that all should have a chance to patent their inventions.

Width of Top-Bars—Honey-Boards.

Dr. Higbie—With wide top-bars less brace-combs are built, and no honey-boards are needed.

Mr. Fellows—My objection to wide top-bars is, that they are in the way when uncapping the combs.

James Heddon—I have used both wide and narrow top-bars. The narrower the top-bars, the more brace-combs will then be under the honey-board, but the less likelihood of any above. I am yet a great admirer of the lateral movement in combs, when we must handle frames instead of hives. A wide top reduces the lateral movement. And now, while we are talking of top-bars and honey-boards, I wish to say that I believe that three rows of holes in a wood-and-zinc honey-board are sufficient. I have tried putting on 3 and 4 honey-boards on one hive, and it made no difference in the results. Just think how the bees, in the days of the box-hive, used to pass up through an inch auger-hole, and fill the caps. When we remember that it has been estimated that in ordinary honey-flows a bee makes only four trips a day, and ten trips in basswood harvest, it will show the folly of regarding in a serious light the time spent in passing through a queen-excluding honey-board. It is something like an election bet. I must wheel you in a barrow from Kalamazoo to this place, and once around this building. Putting on a queen-excluder is like wheeling you from Kalamazoo, and then *twice* around this building.

President Hilton—What Mr. Heddon says about the inch auger-hole is a good point. I have practiced putting sheets of zinc right down on the brood-frames. This closes up many of the openings, and the bees stop up a great many more, but I have never seen that it was objectionable.

A. D. D. Wood—I have tried putting on the honey-boards 5 and 6 high, and could see no difference in the results. I have also tried stopping up all the holes in a honey-board, except the two outside rows, and the results were the same. I was led to experiment in this direction by putting on sections in the night. One hive had an oil-cloth over the brood-frames, and I did not see it. There was a crack at one side, through which the bees had gained access to the case, and filled it just the same as they had the others.

James Heddon—Good. That pays me for coming to Jackson—just to hear that.

The next topic discussed was,

Producing Extracted Honey and Prevention of Swarming.

R. L. Taylor—I would use plenty of combs, so that the bees can have room to spread their honey when ripening it. I would tier up and leave the honey on as long as possible, but I would not allow the different kinds to become mixed. I would use a queen-excluding honey-board. It is a great inconvenience to have brood in the surplus combs.

James Heddon—I used to think that the great advantage in producing comb honey was, that nearly all the work was done in-doors. With my new hive, the same advantage can be enjoyed in producing extracted honey. Just keep tiering up the cases of combs as fast as the honey comes in. Do not wait for the bees to seal it over; as it will ripen just as fast, yes faster, if unsealed. When the honey is ripened it can be taken off just the same as cases of comb honey are removed. Drive the bees down with smoke, jerk off a case, shake out most of the bees, and carry it to the house with the windows arranged for the escape of the bees. All this is done without exposing any combs to robber bees. To extract, simply invert a section of the hive, loosen the screws, slip off the case, and then stand the combs ready to extract. These narrow combs, not quite sealed over, are just the neatest of combs to uncap.

A. D. D. Wood—I prevent swarming when producing extracted honey, by placing the queen and one frame of brood in the lower story, with a queen-excluding honey-board between that and the upper story. The bees build comb in the lower story, and do not swarm.

James Heddon—This is the old Adair idea. I made 30 of these "long idea," or, as some called them, "wrong-idea" hives, years ago. The idea of preventing swarming will work, but it is too much labor.

W. Z. Hutchinson—This is essentially the Simmins' plan.

The convention then adjourned until 7:30 p.m.

(Concluded next week.)

EXPERIMENTS

With Reversing Brood-Combs, Contraction, etc.

Written for the American Bee Journal

BY C. A. BUNCH.

As I have been trying some of the plans as given by some of the leading bee-men, I will give my experience with the same:

Reversing Brood-Combs.

Does it pay to reverse brood-combs in the spring to increase the number of bees? I believe it pays to take the two outside combs, and put them in the centre of the brood-nest about the time that the rest of the brood-combs are full of brood, and not before. I would take these two combs and shave them down to $\frac{7}{8}$ of an inch in thickness before reversing.

Contraction of the Brood-Nest.

Contraction of the brood-nest, or moving the combs close together about $1\frac{3}{8}$ inches from centre to centre to prevent swarming, as advised by some, would not prevent swarming in my apiary, if there were eight combs in the brood-nest, as that is the number of combs that I have to the hive before swarming; though I think that it is a good idea to have the combs spaced $1\frac{3}{8}$ inches from centre to centre, so that the queen will lay in the upper part of the combs, which I believe she will not do if they are much further apart.

Contraction of the brood-nest for the production of comb honey I have tried also; but it seems that bees in Indiana act differently from what they do in Michigan, and I think that it is on account of the season being warmer here.

I hived swarms on 5 Langstroth frames with mostly $\frac{1}{2}$-inch foundation starters, and the balance on empty frames; about the time the frames were built out with comb, the bees began to swarm, and at one time 4 of these swarms came out at once, and settled on a little Siberian crab-apple tree. Oh, what a swarm it was, with a lot of deserted honey-crates behind. The only way to get out of such a dilemma was, to give the bees room for 8 brood-frames, which I did, and after that scarcely a swarm issued.

The Use of Honey-Boards.

As an experiment I used 12 wood-and-zinc queen-excluding honey-boards the past season, for producing comb honey, and the balance of the hives were without honey-boards. It seems that some bee-keepers have no trouble with the queen laying in the sections, while I do. The sections were over an 8-frame hive, for I had the honey-boards over the contracted hives of 5 frames.

I like prolific queens, but I want the eggs down in the brood-nest, where I expect to have them next season—which means that I will use the honey-boards on all hives hereafter.

La Paz, Ind.

READING.

How to Employ the Time in Winter Advantageously.

Written for the American Rural Home

BY G. M. DOOLITTLE.

Now that we are in the midst of long winter evenings, it becomes the duty of all to spend these evenings in such a way that they may be gaining in knowledge along the line of the pursuit they have chosen in life. In no business engagement is this more imperative than where the culture of the honey-bee is the chosen occupation, and in no way can this be done to any better advantage than in reading the bee-literature of the day, from which the mind is to be stored with useful knowledge which can be put into practical use as soon as the season of 1889 opens.

When I first commenced bee-keeping I was greatly benefited by the writings of E. Gallup, M. Quinby, A. I. Root, Adam Grimm, and many others of those early writers on this subject; for by their writings I learned my A B C in bee-culture. My first year of experience in bee-keeping by way of putting the things which I had read in practice, resulted in 12 pounds of comb honey and one swarm from the colonies I had purchased to commence with. The next season I obtained 25 pounds of surplus from each colony I had in the spring, on an average. At the end of the fourth season, I chronicled an average of 80 pounds of comb honey, as the average surplus for each colony in the spring.

During these four years I had studied, read and practiced all my wakeful hours, about the bees, having keen enjoyment in doing the same, for I never spent an hour in my life in work per-

taining to bee-culture without its being a real pleasure to me, and this was brought about by those winter evenings when I first began to read up the subject. Many a night have I been awake from one to three hours, planning how to accomplish some result I desired to achieve in regard to the practical part of apiculture, which with the help of what I had read, caused me to accomplish what I had sought after.

I have found that if I would succeed, that as far as possible I should read mainly those articles which came from the pens of practical bee-keepers, for such were the ones who made a success of their calling, and told how they did it. If you wish to learn farming, to whom do you go, the man whose farm grows up to weeds and briars, or to the man who produces good crops each year? To the latter, of course; and so you should do in bee-keeping.

I know that many of our most practical bee-men do not write for publication, and for this reason we can bring in visiting, during the winter, as another help along this line of our qualification. Then we have our bee-conventions, which are held for this special purpose, and while the cost may be considerable, yet if we improve the time as we should, we can learn more than enough to make that cost good, beside the benefit which we derive socially.

All of these things are great helps to us, and should be eagerly sought after, as they will be if we have a natural qualification for the calling which we have chosen. If any persons love tomething else more than they do to study into bee-keeping, and only do this as a sort of duty, let them be assured that they have mistaken their calling, and the sooner they leave it and go to that which at all times gives them pleasure, the better they will be off, and the better it will be for the world.

Upward Ventilation in Hives.

If no upward ventilation is provided for our bees during the winter, the moisture exhaled by them condenses and forms ice on the walls and top of the hive, making their home uncomfortable in cold weather, and as soon as the weather moderates sufficiently, the ice above and at the side melts, causing wet and damp combs, which tends to dilute the honey, thus making it in a condition to cause bee-diarrhea, by the bees being obliged to take so much thin liquid into the stomach. In many cases the water comes in direct contact with the combs occupied by the cluster. When this occurs, if the temperature lowers suddenly, as it often does in mid-winter, the colony is often lost. This shows that upward ventilation is very desirable, still it should be so given as not to cause a direct current of air through the hive.

Borodino, N. Y.

FEEDING BEES.

An Experience in Feeding and Uniting Colonies.

Written for the American Bee Journal

BY MRS. L. C. AXTELL.

For three years our bees have done very poorly, but we did not have to feed them until the fall of 1887, when we fed cut loaf-sugar to a few colonies that seemed short of stores: but very few of the colonies worked upon the sugar, because it was so hard and dry. We thought so last spring, as we had it all to gather off, and melt up and feed in a liquid state; so through the spring and summer we fed 9 barrels of sugar, counting those two.

We ceased feeding about a month in clover time, but had to begin again in July, to keep some colonies alive. We fussed with them a good deal, and equalized their stores to prevent the necessity of feeding, as far as possible, as there is no work about bee-keeping that we dread so much as feeding, and we never feed our bees if they can gather enough from Nature's stores. For one reason or another, it tends to make people suspicious of honey, if they know that bee-keepers feed their bees sugar when they know that bees can get natural stores. But it does not pay to let one's horses, that have done the best they could, die for want of food in winter.

Many bees in this neighborhood died for want of food, but some lived over winter, where there were but few colonies, without any feeding, and this fall they gave a few pounds of surplus honey.

Our bees were in good condition when the fall honey-flow began, and for 3 weeks they brought in honey lively, until the brood-combs became solid "slabs" of honey, which I can assure you delighted our eyes, and gave 800 or 1,000 pounds of surplus. I think that I never saw honey come in faster than it did for a short time, and then is the time one should do all the uniting of weak colonies, as it can then be done so successfully, and with so little loss of bees or robbing.

It does not pay, at that season of the year, to try to build up weak colonies by drawing brood from the strong late in the fall, unless one has young queens that they do not care to kill, and then it is better to remove old or rejected queens, and give their colonies the young queens, getting all colonies in fair wintering condition while honey is coming in.

Roseville, Ills., Dec. 19, 1888.

SEASON OF 1888.

Bee-Keeping in Maine—The Open-Side Sections.

Written for the American Bee Journal

BY J. F. LATHAM.

From May 1, 1888, to the present time, the weather in this section of our broad land, has been inimical to almost every branch of the pursuit of those who derive their sustenance from the bounties of Nature. Cold and wet has been the order of the times. Among the different branches of agriculture, that of apiculture has failed to be remunerative, except in some favored localities. Collectively speaking, there have been but few swarms, and a very small quantity of surplus honey has been stored to reward the efforts of the bee-keeper.

My 59 colonies of bees passed the winter of 1887–88 successfully. During the first stage of brood-rearing in the spring, 2 colonies lost their queens, but by uniting, and supplying them with emerging brood and eggs, until drones commenced flying, my number was reduced but one colony.

During the time for "building up," the weather was so unfavorable that, with few exceptions, my bees failed to respond to my usual treatment for increasing the brood; consequently, when the white honey harvest time arrived, many of the colonies were too weak, numerically, to enter the surplus receptacles in time to meet the first yield. A few of the strongest colonies stored 40 pounds of surplus honey each, the weaker ones from 3 pounds to 20 pounds each. My whole crop of honey in the comb amounted to some over 800 pounds, which, with 10 pounds of wax and an increase of 4 colonies from 9 swarms, represents the income of a working force of 58 colonies for the season.

From the foregoing it is readily perceivable that the pursuit of bee-keeping as a specialty, is somewhat precarious when absolute assurance in a pecuniary sense is considered. I feel prompted to admit that the time spent in caring for my colonies during the time of surplus storing the past two seasons, those of 1887 and 1888, in procuring 2,000 pounds of honey, was more than double that spent in the season of 1886 in procuring the same quantity, plus the time spent in caring

for the colonies during the springs and falls of the former seasons.

If I mistake not, the results of the past two seasons are somewhat averse to the arguments of those who so strenuously advocate *specialty* in bee-keeping, causing them to change the bias of their opinions in regard to its feasibility, as an exclusive occupation. Specialty in bee-keeping, based on the feudal theory of those who advocate the protective-territory system, might meet the demands of specialty in some instances, but the specialist of 50 or 100 colonies will need a prop, at times, if he exercises the requirements of his business in a more enlightened aspect. But, as every evil has its corresponding good, so do poor honey seasons influence good prices, and quick sales for the products of the apiary.

The "Open-Side" Sections.

I think that if Mr. Hambaugh should use sections open at the sides, in a case with the **T** rest as supports, and separators so constructed as to allow the bees a free range, "fore and aft," as well as up and down, he would experience less reason for complaint in regard to "the size" of the one pound sections "appearing contrary to the laws governing the household economy of the bee," as stated on page 795 of the BEE JOURNAL for 1888.

I have used the open-side section in cases (with the tin **T** for supports), constructed so as to allow the sections to be placed *en masse* with separators having openings to match those in the sections. This method allows a free range for the bees, and assures a much better filling of the sides with comb and honey, than when close-side sections are used.

In my experience, when close-side sections are used with close-end separators, the combs in the sections will be rounded off with two or three rows of short, uncapped, and often empty cells on each side of the box, especially when a scanty flow of nectar prompts the bees to curtail their work; leaving the sections lank in appearance, and light in weight—in reality, reducing the honey, however good, to a second grade article, in the estimation of the consumer. A section filled chock-full has a much better appearance, and sells much more readily than one more weighty, if in an unfinished condition.

Cumberland, Me., Dec. 12, 1888.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble, and at the same time help to scatter apicultural knowledge and promote the welfare of our pursuit.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Jan. 8, 9.—Ontario, at Owen Sound, Ont.
W. Couse, Sec., Streetsville, Ont.

Jan. 9-11.—Nebraska State, at Lincoln, Nebr.
J. N. Heater, Sec., Columbus, Nebr.

Jan. 15.—Vermont State, at Middlebury, Vt.
Marcia A. Douglas, Sec., Shoreham, Vt.

Jan. 15, 16.—N. W. Ill. & S. W. Wis., at Rockford, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

Jan. 16.—Indiana State, at Indianapolis, Ind.
Geo. C. Thompson, Sec., Southport, Ind.

May 4.—Susquehanna County, at Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Report for 1888.—Louis Gerhart, Lyle, Minn., on Dec. 10, 1888, writes:

I had 4 colonies in the spring of 1888, increased them to 8, and took 100 pounds of honey. I worked my bees on the tiering-up system this season, which was generally thought best for a year of this kind.

Stands at the Head.—Mr. G. E. T. Kyber, Green Bay, Wis., on Dec. 21, 1888, says:

The AMERICAN BEE JOURNAL stands at the head of bee-literature, and the information obtained therefrom is far in advance of the remuneration therefor. Compliments of the season.

Uniting Colonies, etc.—Mr. Geo. Eidemiller, McGregor, Iowa, on Dec. 17, 1888, writes:

My increase this year, from 5 colonies, spring count, was 17 by natural swarming. I kept uniting according to time and the strength of the colonies, and by so doing it left me 12 good colonies; from 7 of them I took 650 pounds of comb honey. Extracted honey sells at 10 cents, and comb at 18 cents. I winter my bees in the cellar under the house, and they weigh from 40 to 60 pounds per colony.

Not a Pound of Honey.—Mr. A. C. Balch, Kalamazoo, Mich., on Dec. 24, 1888, wrote thus:

I have had no honey this year, and have had to feed many of my colonies of bees, to keep from starving. I have not taken one pound of honey from them this year.

Bee-Keeping in Alabama.—I. J. Heaton, Pratt Mines, Ala., on Dec. 24, 1888, says:

I began in the spring of 1888 with 41 colonies, some being very weak. I have sold $170 worth of honey, most of it extracted, at 12½ and 15 cents per pound. I now have 53 colonies packed in cotton-seed, with plenty of honey to winter on, I think. There is no clover in my bee-range, and but little basswood. There is plenty of sour-wood, and I have a good market. I contemplate sowing 5 or 6 acres in lucerne clover the coming spring. My greatest pleasure is with my bees. I am well pleased with the AMERICAN BEE JOURNAL, and think it well worth twice its subscription price. I wish its editor and contributors a Happy New Year. I do not feel discouraged so long as I have such noble leaders. Let us all remember the watchword.

Bee-Cellar Ventilators, etc.—C. Theilmann, Theilmanton, Minn., on Dec. 21, 1888, writes:

So far the weather has been very fine. We have no snow as yet. My bees are very quiet at 42°, with the ventilators all open in the bee-cellar. I am sure that my bee-cellar would be too warm for the bees, if I had no ventilators in it. They are very valuable in such weather.

I send my membership fee for the Bee-Keepers' Union. The change of time for paying the fee suits me better than before, as we have more leisure at this time of the year to attend to such matters, than in the height of the honey season.

Good Prospects for 1889.—W. H. Graves, Duncan, Ills., on Dec. 19, 1888, says:

My honey crop this year was next to a failure, and two years in succession makes it somewhat discouraging. I have been used to bees all my life, and expect to keep them as long as I live. They are in good condition for winter. I have just been putting them in the cellar. I have 58 colonies. I never saw white clover so thick everywhere as it is here. I think that we have good prospects for a fine crop for next year.

Prospect for White Clover.—Geo. Shafer, Neoga, Ills., on Dec. 19, 1888, says:

The past season has been very poor, but some better than last year. From 34 colonies the yield was only 1,000 pounds. Bees are in good condition for winter, and the prospect for white clover is good.

Results of the Season.—Wm. C. Wolcott, Eldorado, Wis., on Dec. 17, 1888, writes:

It has been a poor season here for bees. I started last spring with 43 colonies, and many of them spring dwindled down to very small colonies. I increased them to 71 colonies, which are in good condition. I put them into the cellar on Nov. 15. I only had 1,300 pounds of honey, and 1,000 pounds of that was extracted. The comb honey I sold for 15 cents per pound, and the extracted at 10 cents per pound. I intend to take the AMERICAN BEE JOURNAL as long as I live and keep bees.

Fine Weather for Bees.—W. T. Zink, Nicholas, Mo., on Dec. 14, 1888, says:

We are having fine weather. Bees were flying yesterday, and there were no signs of diarrhea. My bees gave me a surplus of about 8 pounds per colony, spring count, with plenty left to winter on. The last two seasons have cooled the ardor of a few bee-keepers here, but I still hope for a rich harvest.

Fine Fall for Bees.—N. W. Afflerbaugh, Cameron, Nebr., on Dec. 17, 1888, writes:

My bees are well supplied with stores sufficient to last them until honey comes

again. I have built a shed, and packed my 53 colonies in it on Dec. 15. We have had a nice fall, and bees were flying almost every day. I had a good yield of honey the past fall, from heart's-ease and golden-rod. I am selling the honey for 20 cents per pound. My honey sells more readily than California honey, and my customers say that it tastes more like honey.

Crossing Races of Bees.—W. H. Andrews, McKinney, Tex., on Dec. 22, 1888, writes:

I wish to say that the whole yield of the apiaries of North Texas for the last six years would not equal one good crop. All of my bees did not gather enough last season to winter half of them this winter. I am a paralytic, having suffered a stroke upon my right side. It came the 15th of last July. I write with my left hand. The man who talks about "crossing" the races of bees with the view of establishing a superior "breed," is clearly lost—off his reckoning. If mongrels are his aim, he need only go to his neighbors' yards, and take the first colony he comes to; 95 per cent. of all the bees in North America are just mongrels, ready made to his hand.

Bees Did Fairly Well.—Mr. John Booth, Barry, Ills., on Dec. 24, 1888, writes:

I have about 20 colonies, mostly hybrids, and on Aug. 26 or 27 there was not a pound of honey in any of my 20 hives; but about Sept. 1 my bees began to gather some honey, and by Sept. 15 they were fairly outstripping anything I had ever seen in the way of gathering honey. But being a plasterer by trade, I was necessarily called away from my bees just when they needed the most attention, to make them the most profitable; but they did fairly well, and our buckwheat cakes will not go dry this winter.

Packing Hives with Sawdust.—Samuel King, Jr., New Paris, O., on Dec. 21, 1888, says:

The forepart of this season was tolerably fair for honey in this locality, but the fall has been the poorest one for 20 years, on account of dry weather. My crop of comb honey was about 750 pounds, from 28 colonies. My 35 colonies of bees at this time are in pretty fair condition, although I had to feed some. I have wintered my bees heretofore altogether on the summer stands, and my method for the past two winters was by using outside casings packed with sawdust, with chaff cushions above the bees, and I think I have wintered them successfully. This year I have put a few colonies into the cellar, to test cellar wintering.

Ups and Downs of Bee-Culture.—A. J. Fisher, East Liverpool, O., on Dec. 22, 1888, writes:

I have kept bees for 25 years, and never have I during that time had as poor results as the two summers of 1887 and 1888. Not one pound of surplus honey did I get, but I had to feed freely for winter stores. If I was a specialist, and depended upon my bees for my bread and butter the last two summers, I would have had to practice Tannerism pretty freely. But if the season of 1889 proves likewise, shall I quit the business in disgust? No, never, as long as a bee lives, and I live. All business has its ups and downs, and these two seasons have been the "downs" in the bee-business with me. Now I am going to prepare for the "ups." Long may live the good old AMERICAN BEE JOURNAL! Hurrah for 1889!

Rearing Brood in December.—Alex. Sherington, Dutton, Mich., on Dec. 24, 1888, writes:

Yesterday one of my colonies of bees was flying very strong, when the weather was at 5° above zero. On examining them, I found that they had five frames partly filled with brood and eggs, and young bees crawling all over the combs. It is a strong colony, and has plenty of honey. My bees are packed on the summer stands, with 14 inches of chaff around them.

[We have been having fair summer weather, and surely the bees thought that, as "December is as pleasant as May," they may as well have a "flying spell."—ED.]

Willing to Try Again.—Nathan M. Woodman, Bushnell, Ills., on Dec. 24, 1888, says:

In this section, we who have tried to do something in handling bees for the past 3 or 4 years, have had such bad luck that we have about become discouraged, and many have ceased keeping bees entirely. I, like the rest, have had my bad luck, but I do not feel like giving up, and I will try once more.

No Snow Yet, etc.—Edwin Bump, Marshfield, Wis., on Dec. 22, 1888, says:

I commenced in the spring of 1888 with 23 colonies of bees. I sold one colony in June, increased my number to 52, and took off 1,500 pounds of white comb honey. I put my bees into the cellar on Nov. 14; that is not bad for a climate where the mercury goes down to 48° below zero. We have no snow yet. My bees are Italians, and I handle them without veil or gloves. A bee-sting does not hurt me as badly as a mosquito bite.

Swarming-Out, etc.—R. A. Rosser, Nelsonville, Ohio, on Dec. 24, 1888, writes:

I commenced the season of 1888 with 32 colonies in the spring, increased them, by natural swarming, to 48, which are now in good condition. I have taken 750 pounds of comb honey. My bees did exceedingly well until the last of June, when we had a very hard rainfall, lasting several days; after the rain it turned cold, and bees did nothing after that. I had to feed in the fall 300 pounds of sugar. Some of my new colonies kept swarming out in October, and when I examined into the cause, I found that they were starving; so I fed them, and had no more swarming. All now have plenty of stores, and if other conditions are right, I have no fears about their wintering.

Experience with Bees, etc.—J. E. Brooks, Howell, Mich., on Dec. 17, writes:

I commenced in April, 1887, with 10 colonies of bees in double-walled hives, and they were increased to 32 colonies by the following fall; but in wintering them in the cellar the combs all molded, and I lost all but 5 colonies, so last spring I began with that number. As no honey was gathered in 1887, I tried to winter my bees by feeding syrup. The season of 1888 has been a failure, as I only had about 100 pounds of surplus honey, and now I have 9 colonies, besides losing some swarms each year by their absconding. I packed my bees on the summer stands this winter. We have had but a few days of cold weather yet, and no snow. I was plowing on Dec. 11, and the ground is not yet frozen. It is raining to-day. Our assessor, last spring, had blanks, and made a record of all the colonies of bees lost last winter, and found that one-half of the bees in this section were lost then. I have tried several honey-plants, and have had no good of them yet. Nearly all of my Alsike clover dried up in July and died. It headed out about July 1, and by July 15 it was gone. I watched, but I never saw my bees at work on it. I sowed some sweet clover and catnip seed. The catnip is the best honey-plant we have here, excepting buckwheat. Most of the honey taken the past season was from buckwheat. It is good enough for me to use on winter pancakes. We had a very dry summer. I expect to keep bees, if I can, so long as I can get what honey we want to eat.

Melissa—How Far Bees Fly.—S. L. Watkins, Placerville, Calif., writes thus:

Last spring I received a small package of melissa seed, and planted a small patch of it about the middle of April. About July 1 it commenced to bloom, and continued until frost came. It grows luxuriantly on our mountain soil, and seems to be a great yielder of honey. Bees work well on the blossoms, and during the height of its flowering, bees swarmed on it. I think that it would pay well to cultivate it for honey.

"How far will bees fly in search of stores?" is often asked. In reading some old numbers of bee-papers recently, I find that there is quite a diversity of opinion, as regards the distance bees go in search of stores. I do not know how far bees will go in a level country, but I can come somewhere near how far they go in this mountainous part of California. In bee-hunting I never tracked black bees more than two miles from their habitation. I have frequently seen Italians and Carniolans three miles from the apiary. I do not believe that bees make much headway when working over three miles from home. Carniolans and Italians are stronger flyers than the common bees, and go further in search of stores.

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AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

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Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

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If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

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Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

Cold, bare and brown lie hillside, dale and plain.
They rest from labor now; yet flower, fruit and grain
Shall cover them again. Complain not that they sleep—
Sow worthy seed; a worthy harvest shalt thou reap.

Care in the selection of seed is of prime importance in securing good results. Get worthy seed; seed that is pure and fresh; such seed as James J. H. Gregory, of Marblehead, Mass., raises on his farms, and has sold to the public for thirty years, and worthy harvests shalt thou reap. Send for his 1889 catalogue, free to all.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00...	
and Gleanings in Bee-Culture	2 00....	1 75
Bee-Keepers' Magazine	1 50....	1 40
Bee-Keepers' Guide	1 50....	1 40
Bee-Keepers' Review	1 50....	1 40
The Apiculturist	1 75....	1 65
Canadian Bee Journal	2 00....	1 80
Canadian Honey Producer	1 40....	1 30
The 8 above-named papers..	.... 5 65....	5 00
and Cook's Manual (old edition)	2 25....	2 00
Bees and Honey (Newman)	2 00....	1 75
Binder for Am. Bee Journal	1 60....	1 50
Dzierzon's Bee-Book (cloth)	3 00....	2 00
Root's A B C of Bee-Culture	2 25....	2 10
Farmer's Account Book	4 00....	2 20
Western World Guide	1 50....	1 30
Heddon's book, "Success,"	1 50..	1 40
A Year Among the Bees	1 75....	1 50
Convention Hand-Book	1 50....	1 30
Weekly Inter-Ocean	2 00....	1 75
How to Propagate Fruit	1 50....	1 25
History of National Society	1 50....	1 25

Do not send to us for sample copies of of any other papers. Send for such to the publishers of the papers you want.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Convention is now issued, and copies have been sent to each member, as well as to the Colleges, Agricultural and Horticultural Societies and periodicals devoted to the industry. Copies can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at 8 cents per pound for Amber and 9 cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

We Supply Chapman Honey-Plant **SEED** at the following prices: One ounce, 40 cents; 4 ounces, $1; ½ pound, $1.75; 1 pound, $3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for reference and examination every day in the year. Price 60 cents, postpaid. Subscription for one year and the binder for $1.50.

Money in Potatoes, by Mr. Joseph Greiner. Price, 40 cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Simmins' Non-Swarming System.—We have a few of these books left, and we will club them with the AMERICAN BEE JOURNAL for one year, both postpaid, for $1.25. The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Photographs of Bee-Keepers.—The "medley" gotten up by E. O. Tuttle, containing the faces of 120 representative apiarists, and a printed sketch of each one, will be sent with the BEE JOURNAL for one year for $1.75; or we will present it *free,* by mail, to any one, for a club of three subscribers and $3.00.

The Time for Reading has come, with the long winter evenings. We have a large stock of bee-books, and would like to fill orders for them. To read and post up is the way to succeed in any pursuit—in none is it more important than in bee-keeping.

Convention Notices.

☞ The Nebraska State Bee-Keepers' Association will convene at Lincoln, Nebr., on Jan. 9, 10 and 11, 1889. J. N. HEATER, *Sec.*

☞ The annual meeting of the Ontario Bee-Keepers' Association will be held at Owen Sound, Ont., on Jan. 8 and 9, 1889. W. COUSE, *Sec.*

☞ The annual convention of the Vermont State Bee-Keepers' Association will be held in the Court House at Middlebury, Vt., on Tuesday, Jan. 15, 1889. MARCIA A. DOUGLAS, *Sec.*

☞ The annual meeting of the Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will be held in the Supervisors Room of the Court House at Rockford, Ills., on Jan. 15 and 16, 1889. D. A. FULLER, *Sec.*

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at the Court House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m. H. M. SEELEY, *Sec.*

☞ The annual meeting of the Indiana State Bee-Keepers' Society will be held in the Agricultural Rooms in the State House at Indianapolis, Ind., beginning at 10 a.m. on Jan. 16, 1889. Reduced railroad rates can be secured by purchasing a through ticket to Indianapolis, taking the agent's receipt for the same, and having it countersigned by the Secretary of the Bee-Keepers' Society. GEO. C. THOMPSON, *Sec.*

Good Enough.—Andrews & Lockhart, of Patten's Mills, N. Y., on Oct. 13, 1888, wrote as follows concerning their use of the advertising columns of the AMERICAN BEE JOURNAL:

We got more orders from our advertisement in the AMERICAN BEE JOURNAL than from all the other bee-papers put together. We shall advertise in it again next year.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

Alfalfa Clover.—For habits and cultivation of this honey-plant, see page 245. We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

Do Not Forget to send a dollar for a membership fee to the National Bee-Keepers' Union for 1889. It merits your approval, and needs your assistance.

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

Honey and Beeswax Market.

NEW YORK.

HONEY.—We quote: Fancy white 1-lbs., 16@17c.; 2-lbs., 13@14c. Fair white 1-lbs., 14@15c.; 2-lbs., 11 to 12c. Buckwheat 1-lbs., 11@12c.; 2-lbs., 10c. White extracted, 8@9c.; buckwheat, 6@6½c. which is in good demand. Market quiet on comb honey. We expect an increased demand after the holidays. Now is the time to ship honey.

BEESWAX.—22½@24c.

HILDRETH BROS. & SEGELKEN,
Dec. 22. 28 & 30 W. Broadway, near Duane St.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 18@19c.; 2-lbs., 16@17c. Good dark 1-lbs., 15@16c.; 2-lbs., 13@14c. Buckwheat 1-lbs., 14@15c.; 2-lbs., 12@12½c.—Extracted, 7@9c., depending upon quality and style of package. Receipts increasing, but demand still limited. Stock is not selling as freely this season as a year ago.

BEESWAX.—22c.

S. T. FISH & CO., 189 S. Water St,
Nov. 13.

CHICAGO.

HONEY.—It is selling fairly well at 18c. for best 1-lbs.; very fancy lots have sold at 20c. Dark and yellow comb sells slowly at 13@16c. Extracted, 7@9c., according to quality and style of package. The stock of best comb honey is light.

BEESWAX.—22c. R. A. BURNETT,
Nov. 22. 161 South Water St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 18@20c.; 2-lbs., 16@18c. Good dark 1-lbs., 16@18c.; 2-lbs., 15@16c.; fair 1-lbs., 12½@14c. Extracted, white, in kegs and ½-barrels, 8½@9c.; amber in same, 7½@8c.; in pails and tin, white, 9@9½c.; in barrels and half-barrels, dark, 6@6½c. Market steady and supply ample for the moderate demand, but present values have a tendency to restrict general consumption.

BEESWAX.—22@23c.

A. V. BISHOP, 142 W. Water St.
Oct. 25.

NEW YORK.

HONEY.—We quote: Fancy white 1-lbs., 15@17c. 2-lbs., 14@16c. Fair white 1-lbs., 14@16c.; 2-lbs., 13 to 15c. Extracted, white, 7½@8c.

BEESWAX.—23½c.

THURBER, WHYLAND & CO
Sep. 17.

SAN FRANCISCO.

HONEY.—White 1-lb. sections, 12@12½c.; 2-lbs., 12@14c.; amber, 8@10c. Extracted, white, 6½@6¾c.; light amber, 6c.; amber and candied, 5½@5¾c. For comb honey the demand is light; for extracted it is good, and market firm.

BEESWAX.—Dull at 18@22c.

O. B. SMITH & CO., 423 Front St.
Nov. 15.

DETROIT.

HONEY.—Best white 1-lbs., 16@18c. Supply is not large, but equal to the demand.

BEESWAX.—22@23c.

M. H. HUNT, Bell Branch, Mich.
Dec. 12.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12½@16c. Demand slow.

BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.

C. F. MUTH & SON, Freeman & Central Av.
Dec. 17.

KANSAS CITY.

HONEY.—Choice 1-lb. sections, 18c.; dark 1-lbs. 14c.; 2-lbs., 16c.; dark, 13c. White extracted in 60-lb. cans, 8c.; amber, 7c.; in barrels and kegs, 5@8c. Demand good, prices steady, and stock fair.

BEESWAX.—None in market.

HAMBLIN & BEARSS, 514 Walnut St.
Sep. 27.

NEW YORK.

HONEY.—We quote: Fancy white 1-lb. sections, 17½@18c.; 2-lbs., 14@15c. Fair 1-lbs., 14½@15½c.; 2-lbs., 11@12c. Extracted, fancy white clover, 7½@8½c. California white in 60-lb. cans, 8c.; light amber in same cans, 7¾c.; amber, 7¼c. Buckwheat in kegs and barrels, 5½@6. Cuban, in barrels and ½-barrels, 65c. per gallon.

F. G. STROHMEYER & CO., 122 Water St.
Sep. 26.

BOSTON

HONEY.—We quote: Best white clover 1-pounds, 17@18c.; best 2-lbs., 16@17c. Extracted, 8@9c. The sales are good, and indications are that all the honey in the country will be sold by Feb. 1.

BLAKE & RIPLEY, 57 Chatham Street.
Dec. 27.

KANSAS CITY.

HONEY.—White 1-lbs., 16@17c.; fair, 14@15c.; California white 2-lbs., 14@15c.; amber 2-lbs., 12@13c.—Extracted, white California, 7½c.; amber, 7c.

BEESWAX.—None in the market.

CLEMONS, CLOON & CO., cor 4th & Walnut.
Dec. 11.

ST. LOUIS.

HONEY.—We quote: Extracted in barrels, 5@6c. according to quality; in cans, 7@8c. Comb, 12½@15c. Prices firmer on account of scarcity, though the demand is not great.

BEESWAX.—21c. for prime.

D. G. TUTT & CO., Commercial St.
Oct. 17.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6¼ cents; light amber, 6@6½c.; amber, 5½c. Comb, white 1-lbs, 13@14c.; 2-lbs., 13c. Light amber 1-lbs., 12@13c.; 2-lbs., 11@12c. Demand very active for extracted, and fair for comb honey.

BEESWAX.—20@21c.

SCHACHT & LEMCKE, 122-124 Davis St.
Nov. 6.

We have some ELEGANT RIBBON BADGES, having a rosette and gold Bee, for bee-keepers' use at Fairs, Conventions, etc. Price 50 cents each, by mail, postpaid.

THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL.

PATENTS THOMAS P. SIMPSON, Washington, D. C. No atty's fee until Patent obtained. Write for Inventor's Guide.
1A13t

BEES and HONEY,
OR THE
Management of an Apiary for Pleasure and Profit; by
THOMAS G. NEWMAN,
Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

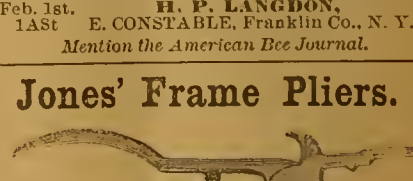
☞ A Liberal Discount to Dealers, by the Dozen or Hundred.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

SEND NOW

FOR my 1889 Price-List of Supplies. Four-piece Poplar and Basswood SECTIONS at $3.50 to $3.00 per M. Poplar Sections for the New Heddon Hive a specialty. Price-List out Feb. 1st. H. P. LANGDON,
1ASt E. CONSTABLE, Franklin Co., N. Y.
Mention the American Bee Journal.

Jones' Frame Pliers.



FOR taking frames out of hives, or moving them in any way desired. It is made of Japanned iron, and can be utilized in many ways. It has a long claw for loosening frames, and a hook which may be used for carrying other frames besides the one held by the Pliers. Price, 40 cents., by mail. By express, 30 cents.

THOS. G. NEWMAN & SON,
923 & 925 W. Madison-St.....CHICAGO, ILLS.

Alley's Drone and Queen Trap.

Price, by Express, 50 cts.; by mail, 65 cts.: 12 in the flat, and one nailed (13 in all), $3.50; 50, in the flat, $12.00. Address.

THOS. G. NEWMAN & SON,
923 & 925 West Madison-Street, - CHICAGO, ILLS.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Jan. 12, 1889. No. 2.

EDITORIAL BUZZINGS.

"Our lives are songs; God writes the words,
And we set them to music at pleasure.
And the songs grow glad, or sweet, or sad,
As we choose to fashion the measure."

The Bee-Keepers' Advance for December came to our desk on the last day of the year. It could not be much later and keep within the month. Bro. Mason should make more *advance* than that.

The Review for December contains a brief history of its existence, and an excellent engraving of its editor. The *Review* is well edited and printed, and is a credit to the craft. The reading matter has been *topical* during its first year, and has been exceedingly interesting. We club it with the AMERICAN BEE JOURNAL for $1.40.

The Supreme Court of Arkansas is sadly behind its docket, and we are just informed that the appeal in the Arkadelphia case may not be reached for a year. It is a disgrace to America that the Supreme Courts, both State and National, are so far behind as to be detrimental to the interests of our citizens, and the defense of their rights.

The Likeness of Prof. A. J. Cook appears in the *British Bee Journal* for Dec. 13, 1888. By means of that excellent picture the European apiarists may learn to love the face and kind expression of countenance of the Professor, ere they form his personal acquaintance, or know the amiable character of him whom the bee-keepers of America feel *proud* to call their honored son, and representative apiarist.

Gleanings for Jan. 1, 1889, is on our desk, and is as usual very interesting. The Editor's illustrated "Notes of Travel" are continued, and will last for four or five more numbers. He describes in a very instructive manner the persons, places, scenery and experiences of his late trip to California.

This issue also contains a biographical sketch and portrait of the Editor of the AMERICAN BEE JOURNAL; the former being written by our friend Dr. C. C. Miller. We make our politest bow for the complimentary remarks of both correspondent and editor.

Syracuse, New York, as a market for honey was unfavorably mentioned by Mr. J. W. Tefft, on page 839, who stated that it was the home market of "Doolittle, House, Salisbury," etc. In our comments upon the matter, we solicited some of the honey-producers to write an explanation, and here is what Mr. F. A. Salisbury writes concerning it:

The article by J. W. Tefft, on page 839, in regard to the Syracuse honey market, saying it is the "home market of Doolittle, House, Salisbury, Betsinger, Parks, Ross, Bailey and others," is a mistake. None of the parties mentioned sell much honey there. I have not sold 100 pounds of honey in Syracuse for years. For what I have sold I have received the same as in other markets. The prices quoted in the daily papers here are misleading, as the prices are not changed during the year. Syracuse is not a good place to sell; so much honey is produced in the vicinity by farmers, who sell for almost any price. They consider whatever they receive as so much clear gain—honey costing them (they think) but very little.

Mr. W. H. Furman, who was well-known in apicultural circles twenty years ago, died on Dec. 29, 1888, at Miller, Dakota. Mr. F. formerly lived at Cedar Rapids, Iowa, but a few years ago he moved to Dakota. He was stricken with paralysis some months ago, and for a time was blind, but recovered, at least partially. His death was caused by a relapse. He was buried at Cedar Rapids on New Year's day. Thus are the pioneers of progressive apiculture passing away.

The Weather is remarkable for this time of the year. Here in Chicago it is almost summer-like—the thermometer ranging in the sixties. We have had no snow worth mentioning, and the ground is soft as in spring. An exchange says that the weather was so spring-like on Christmas Day in the Catskill Mountain region, "that bees and butterflies came out in swarms, lured by the hot sun."

England has also had a liberal share of the mild weather. By telegraph we learn that ten days ago, in a garden near Plymouth, there was no less than thirty spring plants in full bloom.

We hope that summer will not be late in consequence of the mild weather now—but we will not meet trouble half way.

This is the Programme of the ninth annual meeting of the Indiana Bee-Keepers' Association, to be held on Jan. 16, 1889, at the Agricultural Rooms, State House, Indianapolis, Ind., commencing at 1 p.m., and continuing two or more days:

1. President's Address.
2. Making Colonies Strong for the Harvest.—Ora Knowlton, New Brunswick, Ind.
3. Is it Profitable to Use Full Sheets of Foundation in Sections and Brood-Chambers?—Mr. Abbot, Noblesville, Ind.
4. Does Nature Guard Against the Promiscuous Crossfertilization of Flowers, by Causing Bees to Visit Flowers of One Color or One Genus in Securing One Load; or do Bees Visit Flowers Adlibitum?—Prof. A. J. Cook, Agricultural College, Mich.
5. How do You Handle a Swarming Colony to Get the Best Returns from both the Swarm and Parent Colony?—T. S. Bull, Valparaiso, Ind.
6. To what Extent can We be Theoretical Apiarists?—Mr. Hubbard, Editor Apiary Column, *Indiana Farmer*, La Grange, Ind.
7. The Anatomy and Physiology of the Honey-Bee. (Illustrated.)—Prof. Webster, Purdue University.
8. The Best Method of Preventing too Much Increase, Especially Second Swarms.—Mr. Mason, Fillmore, Ind.
9. Queen-Rearing.—Frank L. Dougherty, Indianapolis, Ind.
10. The Best Method of Obtaining Straight Combs—Those in the Brood-Chamber Containing 95 per cent. Worker-Cells.—Miss Eva Scholl, Lyon's Station, Ind.
11. The Æsthetics of Bee-Culture.—Mrs. Cassandra Robbins, Indianapolis, Ind.

Mr. A. I. Root, editor of *Gleanings*, has returned from California, and we hope with renewed health and strength. Here is what he says about getting home:

I am once more (Dec. 20) at home again. The past few weeks seem so much like a dream, that every little while I have to shake myself and look around to make sure that I am in wintry Medina instead of away off in California, the land of perpetual flowers and sunshine. I am glad I am here, though, after all.

Catalogues for 1889 are on our desk from—

M. H. Hunt, Bell Branch, Mich.—16 pages—Bee-Keepers' Supplies.

W. D. Soper, Jackson, Mich.—20 pages—Supplies for the Apiary.

J. M. Jenkins, Wetumpka, Ala.—50 pages—Bees and Supplies.

Queries.—We closed the year 1888 with Query 600, and commenced this year with No. 601. This department has been exceedingly interesting, and makes a *feature* not to be despised in the make-up of an apicultural periodical.

Mr. George Knickerbocker was married to Miss Julia C. Collin, at Husteds, N. Y., on Dec. 27, 1888. The BEE JOURNAL extends congratulations, and best wishes for their happiness.

Never Disturb the bees during cold weather. If anything is necessary to be done, wait for a warm day, and then do it about noon.

INTERROGATORIES.

Extracting, Granulation, etc.—Mr. W. S. Harris, of Lime Springs, Iowa, asks:

Please reply to the following questions through the AMERICAN BEE JOURNAL:

1. Which is the best way to strain the honey after extracting? 2. Is it necessary to have the honey capped before extracting? 3. How should I care for it in case it is not capped? 4. Which is the best way to prevent its granulation? 5. Is it advisable during the coming season to replace queens that are four years old, with young ones?

1. Strain it through a cheese-cloth.

2 and 3. If honey is extracted before it is capped, it must be ripened after being extracted, by being exposed to the air in a warm place. Care should be taken to keep insects out of it.

4. Some kinds of honey will granulate more readily than others. If heated, put into cans, fruit jars, etc., and sealed while hot, it will remain a liquid until unsealed. Care should be taken not to let the honey boil, and if the jars or cans are put into hot water, it will be all the better.

5. Yes; queens should be superseded as a general thing after the third season.

Granulation of Honey.—Mr. C. A. Huff, of Clayton, Mich., wrote thus on Dec. 19, 1888, and requests a reply in the BEE JOURNAL:

I was in a store in Clayton, Mich., sometime since, and was quite surprised to here Mr. Arthur Bovee make the statement that pure honey will not candy in less than two months from the time it was extracted. He said that when it did candy in a less time than that, it was sugar. Now as Mr. Bovee is well liked, and a good citizen, as well as a bee-keeper, his word has great weight around here. Is he correct?

While it is true that some *pure* honey will not granulate at all, it is equally true that nearly all the honey gathered in the North will granulate upon the approach of cold weather, or when the temperature is below 70°, Fahr. Mr. Bovee was very indiscreet to make such remarks without qualification or explanation.

Feeding Bees in Winter.—Alfred Robbins, Swartswood, N. J., asks the following question:

I bought a Heddon bee-hive last year, and have bees in one brood-chamber. The hive is packed in leaves, except the entrance. The bees have not enough stores for the winter. In what way can I feed them, and what shall I feed them, as I have no honey? They are native bees.

In reply to the above, at our request, Mr. Heddon says:

I have had very unsatisfactory experience in feeding bees after their period of confinement had begun. I prefer that you would consult back numbers of bee-periodicals and books. I am no advocate of candy feeding. My method is to see that the bees have plenty in the fall, and when I find that they do not have enough, I feed them sugar syrup, usually about a month before they cease to fly. I have had good results, however, in feeding them but a few days before the period of confinement began.

GLEAMS OF NEWS.

MUST THE EXTRACTOR GO?

Under this heading a correspondent of the *New Zealand Bee and Poultry Journal* gives the following as a severe rebuke to some American apiarists, who have suggested the condemnation of the honey-extractor. He says:

Will it be believed that the above query has actually been put forward in an American bee-periodical, and seriously considered by the editor and several leading bee-keepers? The idea of some of them being that the extractor, by enabling bee-keepers to largely increase the production of honey, has been the means of lowering the price of that article to less than one-half what it was some years ago, and this is their reason for seriously considering the question of doing away with it.

Shade of Major von Hruschka! are the bee-keepers of America going mad! The low price of honey seems to have affected their brains.

The editor characterizes the suggestion to discontinue the use of the extractor as "one of the wisest and most important suggestions yet advanced by any one." That man should be helped to a straight-jacket and be confined, before he does any serious mischief; for the person that could back up such an insane suggestion must himself be insane, and is not a fit subject to be at large!

It is but *justice* to American bee-keepers to say that no such proposition has been either entertained or endorsed by them as a body of apiarists!

It is unfair to take the expressions of a few (and a *very few*, at that), and call it the opinion of American apiarists. This is a country of *free speech*, and any man can express his opinion *for himself* without compromising his fellow men, or having his individual opinion charged up to the great body of apiarists, and paraded to prove that they are lunatics!

Our New Zealand cotemporary asks: "Are the bee-keepers of America going mad?" No, sir; the great body of apiarists are quite *sane*, and fully able to cope with all the questions presented concerning our pursuit. They need no "straight-jackets" nor dungeons; neither have they authorized any one to speak for them on any important or unimportant matter!

The AMERICAN BEE JOURNAL has never either published the views which our New Zealand neighbor condemns, nor has it endorsed such ideas. The honey extractor has come to stay, and plays too important a part in honey-production to be dispensed with.

If there be anything to complain of, it was the action of those who first used the honey-extractor, in placing the price of liquid honey at a less amount than was asked for honey in the comb, with wood, glass and wax weighed up to the buyer!

It would be a very difficult matter now to raise the price of the clean, *nct*, liquid article—but at the outset it would have been an easy matter to have obtained a larger price for it than for that in the comb; and had it so been ordained then, no one would ever have thought of such a thing now as saying, "The extractor must go."

Our New Zealand cotemporary concludes with this bit of irony:

"O Science! to what point have you brought us bee-keepers to? To that point where we stand ready to condemn you. You, Major von Hruschka, and you, Father Langstroth, have both been the means of increasing the production of pure honey by your inventions; and notwithstanding that we have hitherto lauded you up to the skies and worshipped you as gods of the bee-keeping world, our eyes have now been opened to the evil you have done under the guise of benefitting us. Away with you and your extractor, and movable comb hives; we will have no more of them, but return to the strained honey age, and our primitive forms of bee-keeping. *O miseras hominum mentes! o pectora caeca!*"

This should teach Americans a lesson. Some excitable persons are always making foolish observations, concocting unwise theories, or advising impracticable methods, giving a wrong impression to those who are watching American apiarists in every part of the world.

Only a short time ago, the *Bee-Keepers' Magazine* published a table prepared by a New Jersey man, to show that nearly all the honey on the market was adulterated, and this was thrown into our faces to prove that apiarists were adulterators, and to clinch the assertion by a clergyman in England, that many "adulterating bee-farms" did exist in America!

Later, the *Bee-Keepers' Review* published an article written by a Detroit man, who claimed to have invented a method for manufacturing honey-comb (which, however, is an imperfect affair, and of no *practical* use in the apiary), and this, too, was used by some to give color to the "Wiley lie," which asserted that "combs were being made of paraffine and filled with glucose by machinery," etc.

These and many other instances go to show that some apiarists are forever "putting their foot into it," by presenting an ax to the enemies of American honey-producers, with which they are invited to chop off the heads of American apiarists generally. If it were used to exterminate these unwise scribblers, it might be excusable—but it is always used to the detriment of the pursuit in general—classing all American bee-keepers together, making them responsible for the mistakes made by a few, and holding up their hands in holy horror, while they ask: "Are the bee-keepers of America going mad?"

Brethren, please take this matter into thoughtful consideration, and let there be no more of such mistakes!

QUERIES & REPLIES.

Tool for Cleaning Propolis from the Sections.

Written for the American Bee Journal

Query 603.—What kind of a tool do you use to clean the propolis from sections?—Iowa.

A dull knife.—DADANT & SON.

A common case-knife.—C.C.MILLER.

An ordinary pocket-knife.—R. L. TAYLOR.

The small blade of a pocket-knife, usually.—J. M. HAMBAUGH.

Any knife at hand.—M. MAHIN.

A strong pocket-knife, or a short table-knife.—A. B. MASON.

The instrument that I use is a sharp three-cornered piece, with a handle to it.—WILL M. BARNUM.

Any knife convenient for the purpose—a pocket-knife is as good as anything.—P. L. VIALLON.

A good, strong knife with a sharp point.—C. H. DIBBERN.

A case-knife; sometimes a wide, dull chisel; that is, a chisel not very sharp.—MRS. L. HARRISON.

I have used an old case-knife, and I find that it works very well.—J.E.POND

A sharp and pointed knife-blade; and sometimes glass and sand-paper.—H. D. CUTTING.

A common case-knife, with a thin, pliable blade.—A. J. COOK.

An old table-knife is about as cheap and as good a tool as you can use.—J. P. H. BROWN.

I use a sharp pocket-knife. There is no propolis on my sections, except on the edges, to be cleaned off.—G. W. DEMAREE.

An old case or table knife having ¾ of the blade taken off, so as to leave the end square, like a putty-knife.—G. M. DOOLITTLE.

A small jack-knife. I use the largest blade, and hold that blade between my thumb and finger in such a manner as to guage its position at all times.—JAMES HEDDON.

I have used a carpenter's paring chisel with good effect. Do not use the cutting edge, but use the sharp corners of the blade with a kind of stroke motion. The best way is to use proper cases, and keep out of "scrapes."—J. M. SHUCK.

One which I have found quite satisfactory is made by breaking a worn-out three-cornered file in two in the middle, and grinding the three sides until the edges are sharp. With this tool in the right hand, and the section in the left, very good and satisfactory work can be done.—EUGENE SECOR.

Any knife, either one carried in the pocket or used at the table, will do. A scraper can easily be made, or you can use the side of a chisel or putty-knife.—THE EDITOR.

Getting Honey from the Red Clover.

Written for the American Bee Journal

Query 604.—1. Can Italian, Cyprian, Carniolan, Holy-Land, Caucasian, Egyptian, Albino or any other kind of bees get honey easily out of red clover? If so, which? 2. If not, which can penetrate the deepest flowers?—A. H.

Yes; bumble-bees.—A. B. MASON.

We have no red clover here, and I cannot say. I do not know, but the Italians are good enough for me.—P. L. VIALLON.

1. Why do you not add "bumble-bees?" then you would have it. 2. The one with the longest tongue.—H. D. CUTTING.

1. No, not generally. I think that any of the breeds may do so sometimes.—C. C. MILLER.

Yes, sometimes. If the flowers are "short," and other forage scarce, all hive-bees store from it.—J. M. SHUCK.

I cannot speak about the "easy" part, but I have frequently seen Italians work upon red clover. From a series of measurements, I have found that the Cyprian and Italian bees can penetrate the deepest.—J.P.H. BROWN.

No, not as a rule. Sometimes Italians and other varieties will work on the second crop of red clover; but it cannot be depended upon with any race of bees.—C. H. DIBBERN.

I have had no experience outside of Italians, blacks and their crosses, and I have never had the pleasure of seeing either of them gathering honey from red clover.—J. M. HAMBAUGH.

I have read of certain strains of bees (Italians, I believe) that were bred up to this, and I think that it is quite possible. We should breed more for "long tongues." It will be *the* principal feature of the "bee of the future."—WILL M. BARNUM.

I have no experience with any bees except blacks, Italian and Holy Land or Syrian. None of them can get honey from red clover "easily," but all of them can get at it sometimes, but with some difficulty. The bees from Palestine and Syria have longer tongues than blacks or Italians.—M. MAHIN.

Italian bees work quite freely on the second crop of red clover, particularly on the smaller heads; and in our apiary some colonies of Italians work much better upon red clover than others. Such colonies we mark "Extra," and breed from them.—MRS. L. HARRISON.

1. Italians, and Italian-hybrids can, at any time when the flowrets are well filled with nectar, and better when a previous drouth has shortened the tubes of the flowers.—R. L. TAYLOR.

We have not tried all, but we think that the Italians come as near to it as any of the others, and it is only at times that they can get honey from red clover—probably when the corollas happen to be shorter, or perhaps fuller.—DADANT & SON.

No. Sometimes all bees can get some honey from red clover. Those with the longest tongues could do the best. Italans and Syrians have the longest tongues of any that I have examined.—A. J. COOK.

In some years all kinds of bees work on red clover, and in other years none of them get any honey worth speaking of from this plant. The Italians will work more on red clover than any variety I know of.—G. M. DOOLITTLE.

Red clover is not such a great honey-yielder as many people suppose. The largest yields of red clover honey I have ever seen gathered, were taken in by crosses between Italians and brown-German bees.—JAMES HEDDON.

1. No, not easily; though it is claimed that the Italians can do so to a considerable extent. 2. From all the evidence I can gather, the Italians can penetrate deeper into the flowers than any other variety.—J. E. POND.

1. I have never seen any hive-bee that could get honey out of red clover at all seasons. I think that it is mostly from the second crop of clover that they get honey, because the blossoms are smaller. If from any cause the first crop is dwarfed, the result would be the same. 2. I have only observed blacks, Italians and Carniolans, the advantage being perhaps with the Italians.—EUGENE SECOR.

1. Acecording to my observations red clover yields nectar very scantily in some seasons, and very profusely in some other seasons. I believe that all the yellow varieties of bees work on red clover, when it yields nectar. The best results that I ever obtained from red clover, was by the use of bees that were a first cross between Italian drones and Cyprian queens. I believe that no bees are equal to this cross as workers on red clover.—G. W. DEMAREE.

Yes; all of the kinds of bees can do so sometimes, but none more "easily" than the Italians. When the nectar is plenty, or the corollas are "stunted" by drouth, it is more easily done than when the tubes are deep. The "long tongues" count in this matter. In this the Italians and Syrians are doubtless at the head.—THE EDITOR.

CORRESPONDENCE.

MICHIGAN.

Report of the Michigan State Convention.

Written for the American Bee Journal
BY W. Z. HUTCHINSON.

FIRST DAY.

EVENING SESSION.

This session was opened by the Secretary, who read an essay from Mr. T. F. Bingham, on

Spring Management of Bees.

When to begin spring management of bees is a point which the subject would seem to fix as at the close of winter. But the best period to begin spring management, is when the bees are gaining stores for their keeper and themselves nine months before that trying period when bees, from causes not well settled, and upon which bee-keepers do not agree, develop apparent weakness, and in some seasons, and not rare instances, fail entirely.

It is not the province of this essay to cover all the well-written field so often trod by bee-keepers, relating to this trying period; but merely to direct attention to the very great value of an abundant supply of honey to last a colony until in any spring, however dreary and cold, the clover or other sure supply of honey shall come.

Some seasons, and in localities from which early and abundant pollen is obtained from forest trees, it is possible for bees to stem this trying period with but a meager previous season's stock of honey. But it is not of common events that we feel the uncommon needs. In springs like the one last passed, no bee-keeper can fail to fully understand that honey, even in excess of usual needs, is of inestimable value in the hives.

Probably no bee-keeper present is without experience in single instances, when from some massive hive, gum (old log) or similar abode, when 75 or 150 pounds of honey not accessible in autumn, the colony has passed smoothly through unpropitious springs, and far out-stripped its scantily supplied neighbors. We all know how oft we have heard that a pint of bees was enough, and 10 pounds of honey ample to winter a colony of bees. We also have many times, to our sorrow, paid the penalty of our broken promises to feed, should unpropitious and fickle April present herself with unwonted winds and storms.

At present there appears to be no absolute method by which spring management can be secured, except by judicious and ample provision, and preparation made the previous season.

T. F. BINGHAM.

After reading the above essay, it was discussed as follows:

James Heddon—I have never lost any bees by spring dwindling, that had wintered perfectly. We may as well take up the subject of wintering, as I can see that that is where we will get to.

The Wintering of Bees.

The convention agreed with Mr. Heddon, and he was invited to lead in the discussion; when he proceeded to give a *resume* of the pollen theory, very clearly showing that the consumption of pollen in confinement was the main cause of bee-diarrhea.

H. D. Cutting—Have you not lost bees in winter when they had only sugar stores?

James Heddon—Yes, but not from diarrhea. They simply perished from cold too long continued; but there was not a sign of diarrhea, no over-loading of the intestines, nor any discharges.

R. L. Taylor—I agree with Mr. Heddon. Many have asserted that they did not believe the pollen theory, simply because bees having pollen in the hive do not always have the diarrhea. It cannot cause disease unless consumed in excess when the bees cannot fly. If honey is of easy access, I think there is less danger of pollen being consumed. There is also a difference in pollen. Some is hard, and seems covered with wax; while some is soft, and seems mixed with the honey.

Dr. Higbie—A compound food is needed. Honey is a compound food, and it is likely that the bees may be wintered upon it.

R. L. Taylor—Does the Doctor mean that a compound food must always be the same? Are its constituents the same?

Dr. Higbie—In winter more carbonaceous food is needed.

R. L. Taylor—That is probably true. In winter we do not move about so much, hence the waste is less, and not so much nitrogenous food is needed. When the bees have relapsed into that semi-torpid condition of successful wintering, but little nitrogenous food is needed. If they need any, they need no more than is contained in sugar syrup.

James Heddon—It does not contain a particle.

R. L. Taylor—I once wintered 200 colonies with no pollen in the combs—nothing but sugar syrup. I never had bees winter better. It is held by many that it is better not to have bees breed late. My experience has been the reverse. I would like to ask whether this is the result of the bees using up the pollen in the fall, or from having young bees.

James Heddon—I think that it is the result of the consumption of the pollen before the bees have ceased flying. Young bees cannot hold their feces as well as old bees can, as all know who have taken off honey.

An expression was taken to see how many believed that the consumption of pollen in confinement was the prime cause of bee-diarrhea. Nearly every one held up his hand.

R. L. Taylor—Well, if pollen causes diarrhea, what are you going to do about it?

James Heddon—If sugar were cheaper, I should feed sugar.

Dr. Higbie—Let me ask, who has left pollen in the combs, and the bees did not have the diarrhea?

James Heddon—I have, and so has every one.

President Hilton—I have for ten years wintered bees successfully, paying no attention to pollen.

James Heddon—You know how you winter your bees, and could tell me, and I could prepare mine for winter in exactly the same way, yet I should suffer losses.

The convention then adjourned to meet at 8 a.m. the next morning, and go in a body to visit the City Fire Department.

SECOND DAY.

MORNING SESSION.

After visiting the Fire Department, the convention again assembled at the Hall, and Mr. W. Z. Hutchinson gave an address upon the advantages and disadvantages of attending conventions, in which he said: "I am free to say that were it not for the social features—meeting and enjoying the company of fellow bee-keepers—bee-conventions would be very slim affairs. The majority of those who attend conventions go for the sake of having a 'good time,' and if it can be afforded, it is all right. Between reading the report of a convention and attending one, there is as much difference as there is between reading a love letter and visiting your lover."

President Hilton said: I have always attended conventions, and went home feeling well paid. The social feature is one of the brightest. This life is not all dollars and cents. It is true that our conventions have of late been poorly attended, but that is attributable to the poor seasons; with the return of better crops of honey, I

think that we may look for the crowds as of yore.

James Heddon—If there were no books nor periodicals, conventions would be grand things, but the interchange of thought by means of the printed page is much cheaper, and fully as efficient.

A. D. D. Wood—I have for several years attended conventions. I do not know as it has paid me in dollars and cents, but I have been paid in the social feature.

The convention here adjourned to visit the State's Prison, having received an invitation from the warden.

AFTERNOON SESSION.

The next meeting is to be held at Lansing, Mich., and the Executive Committee are instructed to choose such a date as to enable members to take advantage of the holiday rates on the railroads—that is, between Christmas and New Year's.

The election of officers resulted as follows: President, Prof. A. J. Cook, of Agricultural College; 1st Vice-President, W. D. Soper, of Jackson; 2nd Vice-President, Geo. E. Hilton, of Fremont; 3rd Vice-President, John Rey, of East Saginaw; Secretary, H. D. Cutting; of Clinton, and Treasurer, W. Z. Hutchinson, of Flint.

The Crosses of Bees.

This was the next topic. Mr. Fellows had tried a cross between the Carniolans and blacks, and was pleased with it.

James Heddon preferred a cross between the blacks and Italians. He secured the right kind of a cross, not by mating queens in confinement, but by filling the air with drones from choice colonies. This was done by removing drone-comb from undesirable colonies, and placing it in the most desirable ones.

R. L. Taylor agreed with Mr. Heddon.

President Hilton had tried the Carniolans, and found them gentle and prolific, but lacking in honey-gathering qualities. He had had just as well-behaved colonies of blacks, as of any other bees.

H. D. Cutting had Carniolans. The hairs are longer and whiter. A cross between the Italians and Syrians will produce the most queen-cells. When a swarm comes out, open the hive, and you will think that you had better go into the "pea-nut" business.

Planting for Honey.

Dr. Higbie mentioned his success with buckwheat and rape. He got no honey from the former, while the latter did quite well.

James Heddon—Millions and millions of pounds of honey go to waste every year, and all of Nature's planting. I will venture to say, that not more than one pound in 10,000 is the result of planting for honey. Planting for honey brings in a crop of bee-keepers. Raising crops that produce honey, or scattering the seed in waste places, of some plant that will care for itself, is all right; but all this should be done as quietly as possible. When a farmer comes to me and says, "I have planted some buckwheat for your bees." I say, "Is that so?" Well, now let me tell you something. The honey from buckwheat is very dark and strong, and pretty poor stuff; in fact, we had a little rather not have it." "Is that so?" he will say, and that is the last we hear from him.

The convention adjourned until 7:30 p.m.

EVENING SESSION.

As usual, the attendance at the evening session of the last day was very small, as so many had gone home. Those that were left gathered around the fire, and indulged in an informal chat until the evening was nearly gone. When the meeting was finally called to order, there was a little discussion as to what should be discussed. The Secretary had mislaid an essay by Dr. Tinker. He had glanced it over, and said, as nearly as he could remember, that it was about the same as his article that appears on the first page of the December *Apiculturist*, which Mr. Heddon was asked to read, and comment as he read, which he did.

Mr. Heddon objected to the use of the word "storifying," as used by Dr. Tinker. The Doctor had borrowed the word from the English, and now applied it to the management of the Heddon hive. The Heddon hive is not a storifying hive. In the old days of storifying, hives were not divided into surplus and brood apartments. The most prominent distinctive feature of the Heddon hive is a *divisible* brood-chamber, *not two* brood-chambers piled one above the other. Mr. Heddon also objected to the Doctor claiming the wood-zinc honey-board as his. Mr. Heddon said that he invented the slatted break-joint honey-board with a bee-space; he had also made it queen-excluding by tacking strips of zinc upon the strips of wood. Dr. Tinker was the first to devise, or at least the first to publish, the plan of placing these strips of zinc in saw-kerfs cut in the edges of the slats.

The Committee on Exhibits reported as follows, after which the convention adjourned to meet in 1889, at the call of the Executive Committee:

Your committee beg leave to report the following articles on exhibition:

W. D. Soper, of Jackson, Mich.—Honey-crate, foundation, one-piece sections, Clark smoker, gloves and veil.

Geo. Hilton, of Fremont, Mich.—Varieties of honey, one feeder, one smoker, honey-knife, and a picture of his home apiary.

Frank A. Eaton, of Bluffton, O.—Section-case filled with sections.

T. F. Bingham, of Abronia, Mich.—Smokers and honey-knife.

Thomas M. Cobb, of Grand Rapids, Mich.—One divisible, interchangable case for sections.

R. L. Taylor, of Lapeer, Mich.—One bottle of honey-vinegar.

H. D. Burrell, of Bangor, Mich.—One shipping-case protector.

N. L. Higbie, T. M. Cobb, W. D. Soper—*Committee.*

LOCATION.

Where to Locate an Apiary—Florida, etc.

Written for the Prairie Farmer

BY MRS. L. HARRISON.

The question is asked by a subscriber where the best place is to locate an apiary by a person who intends to make it his whole business. I am completely at sea in answering this question. My best place for an apiary undoubtedly is in my own door-yard, where I can look out of my kitchen and sitting-room windows during swarming time, and be easy of access at all times. Another thing greatly in my favor is, that I can sell my honey at home, and have not to ship it off to a distant city, to lie in a commission house to granulate, and accumulate dust, and wait weary months before I can hear the jingle of the clean cash.

Many bee-keepers in the North and West were disgusted by losing so many bees during our late, severe winters, and sold their homes and hied themselves off to Florida. One wrote back to the BEE JOURNAL, of the many difficulties he encountered in reaching this land of promise; how he had to wade in the water and push a boat before him containing his bees, but wound up by saying, "I never mind this, for I am in Florida." He was located in the wilderness below Tampa; was determined to get where his bees would not freeze to death. His bees did not die, but his wife died, and, with his little children crying around him, he frantically advertised his bees for sale. Who would want to buy, with no market for honey, provided there was any to sell?

A bee-keeper, formerly of the North, but now located in Florida, said at the late convention at Columbus, O.: "I would rather keep bees in the North than in Florida; but I like the climate, my home is there, and I am going to stay." He is one of those who emigrated because his bees died in winter.

A customer lately said to the writer: "I was down in Florida last April; went up the St. John's and down in the Indian river country. So many flowers, and a shower nearly every day; everything sparkling with drops of water. But I tell you Mrs. Harrison, God never made a better State than Illinois." I fully endorse this sentiment; He may be able to make a better one, but He never has.

There are many views to be taken of this question. If boney only is the object sought, then locate where most of it is to be had. If a good market for honey is desirable, then locate where there is less honey, but a good market for it. I know a bee-keeper who lives about twenty miles from me, who gets a great deal more honey per colony than I do, but I would not pay the price for it that he does if I never had a pound. He lives in the Illinois river bottom, with overflowed lands in close proximity, where the fog is thick enough to cut with a knife, and people have the "shakes." True, his bees have abundant pasture; there are thousands of acres of button-wood, with water up to the chin, and no fear of drouth. The wet, uncultivated lands abound in motherwort, Spanish-needles and golden-rod, *ad infinitum*.

Peoria, Ills.

HONEY-BOARDS.

Their History, Uses and Adaptability Considered.

Written for the American Bee Journal

BY JAMES HEDDON.

Honey-boards are getting to be quite popular, as well as some other things I might mention, over which I have been drawn into considerable controversy while trying to uphold and introduce among my brother bee-keepers. When a bee-keeper invents something that is good, tests it until he knows it to be so, there is an internal enthusiasm, that knows no self-interest and no bounds, which impels him to write about it for the benefit of others, simply because it is a fact. There is some splendid things about the human mind, which grows enthusiastic over truth *vs.* error, and it is good that the world is possessed of that beneficent principle.

It may be of interest to the readers of the AMERICAN BEE JOURNAL to hear something about the history of honey-boards. I will not attempt to exhaust the subject, for I do not know all of the experiments and uses that others have made with honey-boards, but I do know something of my own struggles in inventing and popularizing their use.

Older bee-keepers will remember that Father Langstroth made and introduced with his excellent hive, a rack, frame or board, whichever we may choose to call it, which was placed intermediately between the surplus receptacles and the brood-chamber. This was a $\frac{3}{8}$-inch board with three slots running crosswise, and consequently crosswise of the brood-chamber and frames below. Upon this board, surplus receptacles were placed, having slots which were made to range with the slots of the honey-board, making a passage for bees, keeping the bottoms of the receptacles clean, and facilitating the operation of getting the boxes on and off—a very important aid in the days when we had no smokers and less knowledge of how to handle bees.

From this board I began my operations, which resulted in the break-joint, bee-space honey-board, which has now become so popular the world over. I got my first idea of a bee-space in the honey-board, from a desire to use a honey-board which would maintain perfect bee-spaces, everywhere, and leave a perfect bee-space between the surplus receptacles and the brood-chamber, when it was not in use. Of course no honey-board could do this, unless it contained a bee-space in one of its surfaces. Very soon after constructing and testing, to my great satisfaction, the bee-space principle of the honey-board, I struck upon the plan of having many openings, creating the general surface of the board of slats, and having these slats and the spaces between them so arranged that the slats and spaces exactly break joints with the top-bars (and spaces between them) of the brood-frames below; which, while it gives a perfectly free communication to the hive, making a passage for the bees from below to the surplus receptacles above, at the same time it breaks the *direct* communication, almost wholly preventing the building of brace-combs between the top surface of the honey-board and the bottom of the surplus honey receptacles above.

While it has a tendency to lessen the amount of brace-combs which will be built in the bee-space between the top-bars of the brood-frames below and the lower surface of the honey-board, yet it does not entirely prevent the brace-comb building there; but this does not matter much, as we do not remove the honey-board anywhere near as frequently as we do the surplus receptacles which rest upon the honey-board. So now we can work the tiering-up process with surplus receptacles, without the annoyance of brace-combs.

By the way, I might say, right here, that though I was not the first to practice the tiering of surplus receptacles, yet nearly twenty years ago I did discover its worth as a system, and had many tilts through the bee-periodicals while defending the same. Now it is a popular method, and nearly all the great and successful honey-producers of the day use it.

If I remember correctly, our friend A. I. Root opposed me considerably, greatly fearing that any kind of a honey-board would retard the work of the bees and greatly lessen the surplus honey crop; but I did the best I could in its defense, after I had proven the correctness of my ground, and with the aid of the ever-living principle that,

> "Truth will conquer at the last,
> For round and round we run,
> And ever the right comes uppermost,
> And ever is justice done."

A little study will soon convince the practical hive-maker that no honey-board of any value can be made, that does not contain either one or both, the bee-space and break-joint principles. If a honey-board is made without the bee-space principle, the material in it must be thick; and the thicker the slats which form the general surface of the hive, the more apt are the bees to build brace-combs between their edges, and the heavier, more bungling and expensive is the honey-board. It must be thicker, in order to have any solidity, but where the bee-space is used, the space is formed by the thick outer rim which gives the honey-board its solidity.

Then again, the only way the tiering process can be worked with the surplus receptacles over a honey-board, without a bee-space, is by putting the bee-spaces in the supers, at the bottom, rather than the top, which is very objectionable, for reasons too numerous to mention here. There are few bee-keepers but that have discovered their mistake, if they ever put the bee-space at the bottom.

This break-joint principle also tends to keep the queen below, and I will say that there is so little trouble from queens getting into the surplus receptacles, when these honey-boards are used, and comb-honey is the production, that it is hardly worth while to make them queen-excluding. But for the production of extracted honey, it is well to have them so, and there are many conveniences, even in comb-honey production, in having the boards queen-excluding; consequently for the last four years we have used all of ours, that way.

The best method of making them queen-excluding, is to run a narrow saw-kerf into the edges of the slats,

and as the honey-board is put together, slide in a narrow piece of zinc containing one row of queen-excluding bee-passages. This device can hardly be called an invention, and was thought of by four different bee-keepers all independent of the others. I may mention W. Z. Hutchinson, of Flint, Mich., Chas. E. Boyer, of Anger, O., Dr. G. L. Tinker, of New Philadelphia, O., and myself. This took place some three years ago, and quite a little controversy arose regarding the priority. No one, perhaps, will ever know who was prior, but Dr. G. L. Tinker was the first to publish and give his right in the device to the public (see page 203 of *Gleanings* for 1886).

While Father Langstroth was my honored guest, last spring, I perfected a new invention for queen-excluding honey-boards, which greatly pleased him. It was tested, and proves to make a very excellent arrangement; although, perhaps, it is not much better than the combined wood and zinc board. It consists of an all-metal honey-board containing the same rows of queen-excluding bee-passages, placed on the break-joint principle, the same as the other honey-board. For my eight frame hive, eight rows of openings are made, and in such position that they come directly over the center of the top-bars of the brood-frames below. The whole honey-board is a quarter of an inch shorter and narrower than the wood honey-board. This contraction in the dimensions, prevents all bother from corners of the supers slipping down in. Now this is a complete honey-board, the very best in the world, for the avoidance of the brace-combs, both owing to its composition and thinness of surface, but it has the objection of being liable to bag in the center, or "sag," as some say. To avoid this, two **A** or **V**-shaped pieces of heavy tin are soldered to the under side of the board (when in its normal position); and although they are so large that they come down as much as $\frac{3}{8}$ of an inch, still they will not touch the tops of the brood-frames, because each stiffener (as we will call them) points to the center of a space between the brood-frames, so that the bees pass all around them freely. This makes a complete board.

There is no absolute necessity for these stiffeners, but the bee-keeper needs to learn how to manipulate the all-metal honey-board. He should not pry it loose and then lift directly up on the corners, but after loosening the propolis about the edge, give it a lateral twist and it cuts the brace-combs and twists them in two.

At the recent Michigan Bee-Keepers' convention held at Jackson, the question came up as to whether eight rows of queen-excluding holes were sufficient for the passage of the workers of the strongest colonies of bees. I gave not only my experience from the use of over 500 of these honey-boards for several years, but a Mr. Wood, living near Jackson (who by the way has been a large experimenter), gave additional evidence, which convinced the whole convention that even one-quarter of the passage room so afforded by the eight central rows of queen-excluding holes, would be more than ample for the strongest colonies. Great and expensive mistakes have been made regarding this point.

I think I have been pretty nearly over the ground, and having mentioned the State Convention, I take pleasure in reporting an enjoyable meeting, considering that it was quite poorly attended; but few of the well-known and prominent bee-keepers of the State being present. Prof. Cook was ill, and so we had to do without him, although we much regretted it. R. L. Taylor, of Lapeer, was there, and we were pleased to learn that he recently has been elected to the State Senate, while his brother was elected as Representative in the Lower House. So we see that bee-keepers are not without skill and reputation in other channels of thought.

Dowagiac, Mich.

COLORS AND BEES.

Are Bees Attracted by Colors or Odors?

Written for the American Bee Journal

BY A. C. TYRREL.

Whether or not bees are "attracted by color of flowers," is, no doubt, a matter of supreme indifference to the majority of bee-keepers; and if the question were asked as to the number of a bee's legs, some would say four, others six, or *Ich weis nicht*. All are agreed, however, that bees "get there all the same," whether attracted by scent or color, and that is sufficient for their purpose, when the hives are being rapidly filled with honey.

In a scientific point of view, it may be interesting to glean *all* the facts concerning the habits of the busy little workers, and if it is finally determined by scientific research, that flowers of a particular hue are most attractive, those who "plant for honey alone" will be enabled to select the best varieties. In this connection alone, as I view the subject matter, can the final determination of the question be of the slightest importance to the fraternity.

I agree with Prof. Pammel in this, "That odor is important in attracting insects." I also coincide with the statements based upon experiments made by Sir John Lubbock and Hermann Muller, that "bees possess an acute color-sense, readily distinguishing such colors as blue, green, orange, red, white and yellow."

As the question is chameleon hued, I can argue both sides, for I believe that bees are attracted by "scent," and "color" also.

During the term of bloom of a certain honey-plant that I raise, our bees are constantly hovering over them, attracted, no doubt, by both "scent and color." When I thresh out the seeds in the fall, bees are constantly alighting on the dry stalks in such numbers as to be annoying at times.

My usual threshing-floor is on the roof of a hen-house 8 or 10 feet from the ground. As they cannot expect to extract honey from the old, dry stalks, it seems they are attracted by the odor, which is very pungent and lasting. I am never interviewed when gathering and threshing "turnip seed."

It cannot be said that bees are attracted to *me*, by reason of my elegant (?) form, being nearly six feet one way, lean as a fish-pole, and homely as——.

Madison, Nebr.

MANIPULATION.

A New System for the Management of Bees.

Written for the Michigan Convention

BY DR. G. L. TINKER.

It may be stated as a rule, that a colony of bees dividing up its forces by swarming, will not produce as large a surplus as a colony under the same conditions that does not swarm. In a honey-flow extending over most of the season, the rule may be an exception, but it is a rare thing to occur. In view of these facts, bee-keepers have long sought a means to prevent swarming, or in lieu of that, a non-swarming strain of bees. As it has been the instinct of bees to swarm through all the ages, and since it is the only natural means of increase, it is plain that we may not suppress it; and especially when producing comb honey. We may create artificial conditions, as in the taking away of queens, or of the stores as fast as brought in, and prevent it for a time, but we shall never be able to prevent swarming where natural conditions exist.

The best we can do is to deal with the results of swarming. And I may here say, that we can do this to advantage, and bring about results exceeding anything accomplished in times past.

We are entering upon the way of a more profitable and enjoyable apiculture, as in many things in these days we are marching with giant strides into realms of knowledge more wonderful than the most vivid imagination has even dared to contemplate. A single honey-bee is a helpless thing, but a colony of them has power and utility in proportion to its numbers. Who shall say, then, that it may not be guided to greater results and unheard-of wonders? And this we think, no less than we do, that the most useful and yet abundant, the strongest and yet the lightest metal in all the earth, by the skill of man, is to come forth from the elements and give to the world a new civilization, unthought of possibilities and apparently impossible achievements!

For years I have noted the remarkable impulse with which a young swarm begins its labors, and I have thought that we should take heed and make the most of this impulse to rush matters, and pile up a surplus. But it is clear that the impulse can only be developed through swarming. Hence, it will not be a surprise, if the time is at hand when practical bee-keepers shall cease to look for means to prevent swarming, or a non-swarming strain of bees.

The new system of management that I have devised and perfected, and which I shall claim the honor of introducing to my fellow bee-keepers as a practical procedure, is founded upon the above views, and an experimental trial of three years.

The ordinary management is pursued up to the time of swarming, which consists in getting all the colonies as strong as possible, and ready for the expected honey-flow. A supply of extra brood-chambers are made ready with empty combs or frames half-filled with good foundation, or a part of each. No wiring of frames is done. As soon as a swarm issues, it is hived in one of the prepared brood-chambers on the old stand.

The parent colony is set to one side, and the supers taken off and placed on the prepared hive, and the transfer is usually made while the swarm is in the air. A wood-and-zinc queen-excluding honey-board is placed on the brood-chamber, and the supers over it. And here I will say, that the success of this management is largely dependent upon the perfect working of this honey-board, and its adaptation to large colonies. This matter is so important that it may be wise to indicate certain points in its construction, essential to success, lest any shall test the new system and pronounce it a failure from having made use of an imperfect and unsuitable honey-board:

1. The zinc strips should have two rows of perforations, and be set parallel to, and alternate with, the brood-frames.

2. The wood slats must be plump $\frac{1}{4}$ of an inch wide if the brood-frames are spaced more than $1\frac{3}{8}$ inches from center to center; and the wood should come so close to the perforations that the bees may get a ready foot-hold upon it, and thereby be enabled to pass through the board instantly.

Having hived the bees and transferred the supers, I then shake the bees from the combs of the parent colony, down in front of the new one; but this part of the work may be delayed to any convenient time within 24 hours. Thus all the bees that were in the hive before swarming, are kept together, the brood alone being taken away. A colony so managed acts and works like any young swarm, and as all are large, if plenty of surplus room is given, the product will be correspondingly great.

The brood taken away is placed in another brood-chamber, and put over any colony capable of taking care of it. The added brood is placed over a queen-excluding honey-board, and if supers are on the hive, they are to be carried to the top. With the issue of a swarm, every colony in the apiary is so managed, whether it has one or more added brood-chambers. If all the colonies swarm, the result will be an increase of one or more brood-chambers on every hive.

Extracting may be done from the added brood-chambers as soon as the brood is sealed, or about the ninth day; or the combs may be left in place till all the brood hatches. If extracting is not desired, the combs may be storified on as few colonies as possible, and kept till fall and the making up of the colonies for winter, when as many combs of sealed honey may be used as is necessary to winter the bees.

In preparing for winter, the combs not required should be taken from the bees, or at any time from Oct. 1 to Oct. 15, and placed in the brood-chambers and piled up out-of-doors, and there left all winter. By this means all extra combs can be kept safe from the moth-larvæ from year to year, the only other care being to keep out the mice.

This management requires a different sized brood-chamber than has heretofore been used. I also dispense with the use of "dummies" or other means of contraction. A brood-chamber for brood is all that is required, as we want all, or pretty much all, the storage done in the supers. Such a brood-chamber will contain only 830 square inches of brood-comb, and is large enough for any queen where this management is practiced.

The size of the brood-frame is 7x17 inches, and eight are used in each brood-chamber. It is a plain, suspended Langstroth frame suited to rapid handling; and, it may be added, that no brood-frame ever invented, or likely to be, can be handled as rapidly as a shallow Langstroth frame.

This management results in getting all brood-combs attached to the bottom-bars of the frames. If the combs are old, the lower edge should be shaved off, when, if placed in supers, as here advised, all will be extended to, and attached to, the bottom-bars. Another result is, that in all large colonies built up by this system, the bees build no brace-combs between the brood-chamber and the honey-board, or other parts of the hive, so that it is always easy to take the hives apart.

Management of the Queen-Cells.

It remains to give the management of queen-cells and queens by this system. After shaking the bees from the combs, as stated, if queen-cells are not wanted, they are to be removed. If I wish to hatch them, I proceed as directed, taking care not to injure them. The bees of the colony to which they are given, will complete the cells and care for them. I have yet to find one torn down, whether in swarming time or out. Nor does the presence of the cells incite to swarming, as the queen is unaware of their presence. On the seventh day after, the cells should be cut and hatched in nursery cages.

If I wish to supersede the queen in the lower part of the hive, I leave one of the cells to hatch, and do not disturb the hive (unless they swarm) till about the eleventh day. I then go to the hive, and I will nearly always find the young queen on the honey-board, trying to get below. I place her below, and the work is done, as she will at once destroy the old one.

Usually the young queen destroys all of the cells in the super in three or four days. All goes well while a laying queen is in the lower brood-chamber, until the young queen gets ready to mate, when she is balled and killed by the bees. But if provision is made for her to fly out from the upper part of the hive, it occasionally happens that she is allowed to do so, when the bees will destroy the old queen below. If the queens are kept apart, so that they cannot touch each other, it appears that we may have two or more laying queens in a hive at one and the same time; but I think that the bees attending each queen must have a separate entrance.

As to the drones that hatch from brood placed in the supers, I draw back the cover a little, or raise it up to

let them out. If this is not done, we shall find in a short time only the round shells of their thorax, like so many beads, on the honey-board.

I may say of this system, that I have been able to get more honey in sections by it than by any other plan of management, while the honey stored in the extra brood-chambers has appeared as so much gain over the other plans adopted. I believe the system to be not only perfectly feasible, but more easily executed than any other; the hive must be constructed to storify, so that the section supers (which should be identical with the brood-chambers) can be built up in any way desired.

I shall respectfully ask the bee-keepers to give the new system a trial, believing that no other is capable of affording so large results.

New Philadelphia, O.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Jan. 15.—Vermont State, at Middlebury, Vt. Marcia A. Douglas, Sec., Shoreham, Vt.

Jan. 15, 16.—N. W. Ill. & S. W. Wis., at Rockford, Ills. D. A. Fuller, Sec., Cherry Valley, Ills.

Jan. 16.—Indiana State, at Indianapolis, Ind. Geo. C. Thompson, Sec., Southport, Ind.

Jan. 30, 31.—N.E.O.-N.Pa.& W. N.Y., at Franklin, Pa. C. H. Coon, Sec., New Lyme, Ohio.

May 4.—Susquehanna County, at Montrose, Pa. H. M. Seeley, Sec., Hurford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

To New Yorkers—The Union.—G. H. Ashby, Albion, N. Y., on Dec. 28, 1888, writes:

In looking over the list of members of the Bee-Keepers' Union, I find but few from New York State. The Union has a large suit pending in this State, and more should take an interest in it; for they know not who will want protection next. Now, bee-keepers of New York, please "chip in," and place the "Empire State" in her proper place in the Union, and not allow our industry to be protected at the expense of other States. *State pride*, if nothing more, should place us in the lead in the list of members.

Learning by Experiments.—H. Heidenescher, Jr., Landeck, O., on Dec. 27, 1888, says:

It would be very hard for me to do without the AMERICAN BEE JOURNAL, because I would like to hear from others about the bees. I have 11 colonies of bees in Langstroth hives, and they had a good flight yesterday. I will try to keep on going step by step (slowly but surely) in bee-culture, for it has to be learned mostly by experimenting, and all beginners should do the same.

Healthfulness of Bee-Keeping.—Rev. W. R. Whitney, Altoona, Pa., on Dec. 26, 1888, writes:

I cannot do without the AMERICAN BEE JOURNAL. I like its scientific, moral (I might indeed say, religious) tone. I am a Methodist preacher, and keep a few bees, more for pleasure than profit. For three years I have been in this city—a place not well adapted to bee-keeping—and have been unusually busy in building a new church. Even in the suburbs of a city, I believe the keeping of a limited number of colonies of bees could be made profitable. I wish that professional and business men knew the healthful, pleasurable profit, to both mind and body, to say nothing now of the sweet, health-giving honey that might be had, by keeping a few colonies of bees, and reading the AMERICAN BEE JOURNAL.

Bees Roaring in Cold Weather.—T. A. Anderson, Loutre Island, Mo., asks this question, dated Dec. 31, 1888:

Is Mr. Demaree satisfied as to bees roaring in cold weather? I hope that he tested the matter thoroughly last winter.

Good Prospects for the Next Season.—E. Henkle, Washington, O., on Dec. 26, 1888, writes:

I have been going backwards for the last two years in bee-keeping. I began the winter of 1887-88 with 36 colonies, and last spring I had 30. I had 3 swarms, and not a pound of surplus honey. I had to feed 8 or 10 colonies in October, in order to get them in good condition for winter. My bees died more or less all summer, and I now have 24 colonies in good condition, well protected, cushioned and packed, on the summer stands. We have had no white clover here the last two years, but the prospect is good for a bountiful crop next year.

Mild Winter for Bees.—W. Pearson, La Colle, P. Q., on Dec. 26, 1888, says:

We are having a mild winter here so far. I have 175 colonies of bees in the cellar, that are wintering first-rate so far.

Well Pleased with the Pursuit.—B. F. Fritz, Fulton, Mich., on Dec. 27, 1888, writes:

I have had bees for two years, and I am well pleased with the pursuit. I have sold bees and honey enough to get back all the money I invested, and 10 per cent. interest, besides, while invested; and I also have honey left to meet the wants of two families, besides 11 colonies in good condition. I could sell four times my crop of honey in my home market. Careful marketing is the secret. The demand is so great that my merchant has come to the house to get it. The flora of this locality is good, and I am monarch of all of it.

Loss of Young Queens.—A. V. Kouba, Crete, Nebr., on Dec. 26, 1888, says:

The general complaint of bee-keepers is, that the season just past has been a poor one for honey as well as for increase, and only some individual colonies did well in gathering honey. I have secured 860 pounds of comb honey, and 600 pounds of extracted honey, from 22 colonies, spring count. I have also increased my apiary to 43 good colonies, and 5 nuclei. The spring of 1888, in this locality, was cold and rainy, and I had a heavy loss of young queens on their "wedding flight."

In the early part of May, I made up 21 nuclei, and gave each of them a maturing queen-cell; but before the cells had time to hatch out, there came on a cold spell, and result was the loss of 18 queen-cells. I gave them other cells, but this delay brought on an abnormal condition in the nuclei, and they "balled" every young queen on their return from the mating flight. Only three (and they were supplied with hatching brood) came into good condition. I think that the outlook for wintering is good, and I hope to be able to make a better report next year.

Results of the Season.—Mr. J. A. Richenbacher, Gahauna, O., on Dec. 29, 1888, writes:

The past season has been another poor one for honey, hence there was not much gathered in this locality. Most of my bees were weak when spring came, so I united the weak colonies, reducing the 20 colonies to 11. When spring opened, the prospect was for a good season, and bees did well; but when summer came, the bees did not do so well. White clover, which is our main honey source, did not yield much nectar; linden did scarcely as well; but the fall flowers yielded some honey, but they were cut short by an early frost. I got about 26 pounds of comb honey, and about 125 pounds of extracted honey, and increased my apiary to 13 colonies. I held them back from swarming. It will not pay to keep bees in this locality without planting for them.

Bees in Splendid Condition.—Z. T. Hawk, Audubon, Iowa, on Dec. 29, 1888, says:

There has been no zero weather in western Iowa yet, and, so far as I have heard, bees are in splendid condition. I wish the AMERICAN BEE JOURNAL a happy New Year.

No Upward Ventilation.—Lionel Brokaw, Summer Hill, Ills., on Dec. 25, 1888, writes:

Last spring I began with 10 strong colonies and 5 weak ones, increased them to 20 strong colonies, by natural swarming, and obtained 500 pounds of surplus comb honey. It is worth 15 cents per pound here now. I arranged my hives for winter on the summer stands, well filled with bees and honey, with woolen quilts over the frames, and no upward ventilation. The hives are fronting south, with a wind-break on the northeast and west.

Colonies in Good Condition.—A. Sperling, Dewey, Ills., on Dec. 28, 1888, writes:

My report for this year in bee-keeping is not very encouraging. I wintered 42 colonies, lost 6 during the summer, by swarming out (scarcity of nectar being the cause), and made 4 colonies by division. They gathered very little honey until Aug. 20, previous to that date. Most of my bees had not enough honey in the hive to last them 24 hours, and I had to feed some to keep them from starving. Most of the colonies now are in good condition. I obtained 400 pounds of comb, and 100 pounds of extracted fall honey, and left them enough for winter and spring consumption. About one-half, or more, of all the bees in this locality are dead.

Building Straight Combs.—Mr. Daniel E. Robbins, Payson, Ills., on Dec. 31, 1888, writes:

I think that "B. C.," who asks Query 600, on page 837 of the AMERICAN BEE JOURNAL for 1888, either neglected to level his hives across the frames, or put the foundation in so as to rest on the bottom-bar of the frames. In the first case the combs would not hang in the centre of the frames, but would be attached to one edge of the bottom-bar, or even to the next frame; in the other case they would bulge in a most unsatisfactory manner. I find the Dadant light brood-foundation heavy enough with wired frames. I have also succeeded in getting straight combs built in the frames with only starters, or even without them, by proper spacing of the frames, and leveling the hives. Bees usually, however, build too much drone-comb when foundation is not furnished them; yet I think that it is good policy to let them have one or two empty frames to fill, as otherwise I think that the secreted wax goes to waste. Let us hear from the veterans about this matter of comb building.

Wintering in the Cellar.—C. D. Barber, Stockton, N. Y., on Dec. 24, 1888, says:

It is with pleasure that I enclose $1.00 as my dues to the Union. My bees are in the cellar, where I put them on Nov. 17. They worked very fast here up to Nov. 15, which was the last day that they could work. I put 11 colonies into the cellar for the winter; but one colony will not winter, as it has the diarrhea, and its bees are dying fast.

Beginning in Bee-Keeping.—J. H. Scherer, Lena, Ills., on Dec. 28, 1888, says:

In 1886 I caught 2 swarms of bees, and that is the way I begun bee-keeping. I did not know anything about the business, but I packed them in chaff for the winter. In 1887 I increased them to 8 colonies, and took 200 pounds of honey in 2-pound sections. By the spring of 1888 I had lost all but 4 colonies, and those I have increased to 12, and obtained 300 pounds of honey in 2 pound sections. The last two were bad years for beginners in bee-keeping. I could not get along without the AMERICAN BEE JOURNAL. I like it better every week.

New Bee-House, etc.—C.H. Brader, Sperry, Iowa, on Dec. 25, 1888, writes:

I mentioned the misfortune that I had last March, in the burning of my bee-house (which greatly darkened my home and this vicinity, as published on page 200 of the AMERICAN BEE JOURNAL for 1888); but Providence has again permitted me to view a new bee-house in my apiary. It has both delighted and suprised me and my neighbors to see that I had the courage and spent the labor and time to forward this work again after so much obscurity. My new bee-house is a little frame one, 16x24 feet, and 12 feet high. It exceeds by far the old one in size, value and appearance, with drop-siding placed to the weather, and lined with ship-lap, in order to hold the 4 inches of sawdust placed between the lining and drop-siding. I purchased 13 colonies of black bees in box-hives, and transferred them into eight-frame Langstroth hives about June 1, 1888, and increased the number to 24, which I placed in my bee-cellar on Dec. 20. My yield was about 250 pounds of comb honey, worth about 15 cents a pound, and about 80 pounds of extracted honey, worth 10 cents a pound.

The year of 1888 was one of abundant harvest to the farmers of eastern Iowa. They had very favorable weather, and were nourished with sufficient rains in the growing parts of the year. The value of the past two months cannot be estimated in the way of people preparing themselves for winter quarters. We had warm weather, and hard, dry roads until Christmas eve, when we had a transient shower, and the next morning the mercury was at freezing; toward noon it raised to 40°, and as Christmas night came on it again commenced to rain, and now shows a continuance of rains.

Bee-Hawk.—Dr. Wm. Leers, Sigel, Ills., on Dec. 29, 1888, writes:

On page 839, Mr. W. H. Shaner says that a neighbor told him that "he saw one of the big Italians catch a black bee and fly away with it." That is certainly a big mistake. He doubtless confounded a "bee-hawk" (*Asilus*) with an Italian bee. The former were, in the past season, very troublesome. Every day I caught, immediately in front of the apiary, from 40 to 50 (and sometimes more) with a net of mosquito-gauze.

[Certainly. Mr. Shaner mentioned the matter just to show the ignorance of his neighbor, who also proposed to spread a net and catch a lot of Mr. Shaner's bees, as they crossed the line into his clover field! He did not know the difference between an Italian bee and its dreaded enemy, [the *Asilus Missouriensis*.—ED.]

Prickly Ash as a Honey-Producer.—D. D. Johnson, Summit Mills, Pa., on Dec. 15, 1888, writes:

Are any of the readers of the BEE JOURNAL acquainted with a small tree as a honey-producer, called by some "prickly ash?" I have a few of them, and I have never seen as many bees on so small a tree at one time, at work, as on this tree. It blooms in September, and lasts about one month. The bees work on it from morning until night. It is a great tree to sprout; the buds and twigs of the summer's growth are about ⅛ to ¼ of an inch in diameter. The bunch on which the blossoms are, is about 12 to 15 inches long, and full of smaller branches growing from that one, on which the small flowers are by the hundred. The whole tree is full of sharp thorns. It blooms the third and fourth year after planting, and grows readily. If any bee-keeper is acquainted with the quality of honey that it produces, it might benefit others if he would answer, as my trees are too few yet to test that, but I am planting more. They grow on any rough ground.

[Prickly ash (*Xanthoxylon fraxineum*) has been reported as a good honey-producer in Texas, Kentucky, etc. It blooms in July and August, and as that is between the summer and fall honey harvests, it is of value to the bees. The honey is said to be of good quality.—ED.]

Button-Ball Honey, etc.—S. A. Shuck, Liverpool, Ills., on Dec. 31, 1888, writes:

I have been some 60 miles down the Illinois river, and I find that all along the river bottom bees have done fairly well, where they have received proper attention. The honey is mostly from the button-ball. This honey is very fine. The combs are beautifully white, the nectar clear, and the flavor mild and pleasant. Mr. Wm. Markly, near Marble Town, Ills., obtained 1,800 pounds of comb honey from about 80 colonies of bees. At Snicarte, some thirty miles south of here, a groceryman told me that honey was worth from 6 to 10 cents per pound. This results from bee-keepers not taking and reading the AMERICAN BEE JOURNAL. Mr. Wm. Riley, of Breeds, Ills., obtained 3,000 pounds of honey. Mr. R. is probably the most extensive bee-keeper in this county. His apiaries number 140 colonies, mostly hybrid bees. The weather so far has been exceptionally fine, the Illinois river, a very sluggish stream, having but little ice along its shores. My 135 colonies of bees are tucked away in the cellar. In consequence of the fine weather, the temperature in the bee-cellar is at 50°, with the inside door wide open day and night. I obtained 4,500 pounds of honey, all of it being from the button-ball; of this, 1,600 pounds was taken in the comb.

Wintering Well.—Mr. C. V. Lindsey Attica, N. Y., on Dec. 27, 1888, says:

My 150 colonies of bees had a good flight yesterday, and are wintering well on the summer stands; but I fear that some are short of stores. Our pursuit does not pay, but I must still read up with the times, or fail.

Fears Early Breeding.—C. E. Woodward, Newbury, O., on Dec. 31, 1888, writes:

We have had some very changeable weather this winter—a great fluctuation in the temperature. There has been no snow to speak of yet, and bees have just had a nice flight. In this locality they are wintering nicely, and have consumed from 6 to 8 pounds of their winter stores. I am inclined to think that our bees will begin breeding, if the temperature does not become colder. If they do begin breeding too early, and on too large a scale, the results will be disastrous.

Bee-Keeping in Pennsylvania.—Geo. Spitler, Mosiertown, Pa., on Dec. 26, 1888, writes:

Here in northwestern Pennsylvania, like almost all the rest of our brother bee-keepers the world over, did not meet with much success in securing surplus honey. Bees came through to the spring of 1888 in good condition, though there were a few heavy losses in wintering. The first of the spring was very promising; maple bloomed profusely, and yielded much nectar, especially the hard maple, bees even storing some for future use, which was sorely needed; for not in years was May weather so rough on the bees. The colonies did not seem to be as strong the last of May as they were in the forepart. White clover yielded just honey enough to stimulate brood-rearing, which was done rapidly. Basswood yielded no honey, excepting those trees which stood in very moist ground; which proves that the drouth of the past two, or in fact three, years did the damage. Alsike clover yielded some honey, but there is not enough of it sown, or at least not to do much good. Last spring there was quite a large area sown to Alsike clover. Fall flowers yielded enough, so that almost all colonies stored sufficient on which to winter. Golden-rod yielded more honey the past fall than it had done in years. I got but 400 pounds of honey from 30 colonies, spring count. There were but few swarms.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Cork for Winter Packing.—Its advantages are that it never becomes *musty*, and it is *odorless*. Cushions can be made of cloth and filled with the cork, for winter packing. We can supply all orders now at 10 cents per pound. Or a seamless sack of it, containing 15 pounds, for $1.00.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 50	1 40
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Cook's Manual (**old edition**)	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzou's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of of any other papers. Send for such to the publishers of the papers you want.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Convention is now issued, and copies have been sent to each member, as well as to the Colleges, Agricultural and Horticultural Societies and periodicals devoted to the industry. Copies can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

We Supply Chapman Honey-Plant **SEED** at the following prices: One ounce, 40 cents; 4 ounces, $1; ½ pound, $1.75; 1 pound, $3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2 00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

By Using the Binder made expressly for this BEE JOURNAL, all can have them bound and ready for reference and examination every day in the year. Price 60 cents, postpaid. Subscription for one year and the binder for $1.50.

Money in Potatoes, by Mr. Joseph Greiner. Price, 40 cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Simmins' Non-Swarming System.—We have a few of these books left, and we will club them with the AMERICAN BEE JOURNAL for one year, both postpaid, for $1.25. The subscription to the BEE JOURNAL can be for next year, this year, or may begin anew at any time.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Photographs of Bee-Keepers.—The "medley" gotten up by E. O. Tuttle, containing the faces of 120 representative apiarists, and a printed sketch of each one, will be sent with the BEE JOURNAL for one year for $1.75; or we will present it *free*, by mail, to any one, for a club of three subscribers and $3.00.

The Time for Reading has come, with the long winter evenings. We have a large stock of bee-books, and would like to fill orders for them. To read and post up is the way to succeed in any pursuit—in none is it more important than in bee-keeping.

Convention Notices.

☞ The annual convention of the Vermont State Bee-Keepers' Association will be held in the Court House at Middlebury, Vt., on Tuesday, Jan. 15, 1889.
MARCIA A. DOUGLAS, *Sec.*

☞ The annual meeting of the Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will be held in the Supervisors Room of the Court House at Rockford, Ills., on Jan. 15 and 16, 1889. D. A. FULLER, *Sec.*

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at the Court House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.
H. M. SEELEY, *Sec.*

☞ The Northeastern Ohio, Northern Pennsylvania and Western New York Bee-Keepers' Association will hold its tenth annual convention in the City Hall at Franklin, Pa., on Wednesday and Thursday, Jan. 30 and 31, 1889. Good hotel accommodations have been secured at one dollar per day.
C. H. COON, *Sec.*

☞ The annual meeting of the Indiana State Bee-Keepers' Society will be held in the Agricultural Rooms in the State House at Indianapolis, Ind., beginning at 10 a.m. on Jan. 16, 1889. Reduced railroad rates can be secured by purchasing a through ticket to Indianapolis, taking the agent's receipt for the same, and having it countersigned by the Secretary of the Bee-Keepers' Society.
GEO. C. THOMPSON, *Sec.*

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

Alfalfa Clover.—For habits and cultivation of this honey-plant, see page 245. We supply the seed at the following prices: —Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

Do Not Forget to send a dollar for a membership fee to the National Bee-Keepers' Union for 1889. It merits your approval, and needs your assistance.

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now SO CHEAP that no one can afford to do without it.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. It can be obtained at this office.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

Honey and Beeswax Market.

NEW YORK.

HONEY.—We quote: Fancy white 1-lbs., 16@17c.; 2-lbs., 13@14c. Fair white 1-lbs., 14@15c.; 2-lbs., 11 to 12c. Buckwheat 1-lbs., 11@12c.; 2-lbs., 10c. White extracted, 8@9c.; buckwheat, 6@6½c. which is in good demand. Market quiet on comb honey. We expect an increased demand after the holidays. Now is the time to ship honey.
BEESWAX.—22½@24c.
Dec. 22. HILDRETH BROS. & SEGELKEN, 28 & 30 W. Broadway, near Duane St.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 18@19c.; 2-lbs., 16@17c. Good dark 1-lbs., 15@16c.; 2-lbs., 13@14c. Buckwheat 1-lbs., 14@15c.; 2-lbs., 12@12½c.—Extracted, 7@9c., depending upon quality and style of package. Receipts increasing, but demand still limited. Stock is not selling as freely this season as a year ago.
BEESWAX.—22c.
Nov. 13. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—It is selling fairly well at 18c. for best 1-lbs.; very fancy lots have sold at 20c. Dark and yellow comb sells slowly at 13@16c. Extracted, 7@9c., according to quality and style of package. The stock of best comb honey is light.
BEESWAX.—22c.
Nov. 22. R. A. BURNETT, 161 South Water St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 18@20c.; 2-lbs., 16@18c. Good dark 1-lbs., 16@18c.; 2-lbs., 15@16c.; fair 1-lbs., 12½@14c. Extracted, white, in kegs and ½-barrels, 8½@9c.; amber in same, 7½@8c.; in pails and tin, white, 9@9½c.; in barrels and half-barrels, dark, 6@6½c. Market steady and supply ample for the moderate demand, but present values have a tendency to restrict general consumption.
BEESWAX.—22@23c.
Oct. 25. A. V. BISHOP, 142 W. Water St.

DENVER.

HONEY.—White, in 1-lb. sections, 15@16c. Extracted, 9@10c.
BEESWAX.—20c.
Jan. 1. J. M. CLARK & CO., 1409 Fifteenth St.

SAN FRANCISCO.

HONEY.—White 1-lb. sections, 12@12½c.; 2-lbs., 12@14c.; amber, 8@10c. Extracted, white, 6½@6¾c.; light amber, 6c.; amber and candied, 5¼@5½c. For comb honey the demand is light; for extracted it is good, and market firm.
BEESWAX.—Dull at 18@22c.
Nov. 15. O. B. SMITH & CO., 423 Front St.

DETROIT.

HONEY.—Best white 1-lbs., 16@18c. Supply is not large, but equal to the demand.
BEESWAX.—22@23c.
Dec. 12. M. H. HUNT, Bell Branch, Mich.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12½@16c. Demand slow.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Dec. 17. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—Choice 1-pounds, 15@16c.; dark 1-lbs. 12c.; 2-lbs., 14c.; dark, 11c. White extracted in 60-lb. cans, 8c.; amber, 7c.; in barrels and kegs, 5@8c. Demand good, prices steady, and stock large.
BEESWAX.—None in market.
Jan. 4. HAMBLIN & BEARSS, 514 Walnut St.

NEW YORK.

HONEY.—We quote: Fancy white 1-lb. sections, 17½@18c.; 2-lbs., 14@15c. Fair 1-lbs., 14½@15½c.; 2-lbs., 11@12c. Extracted, fancy white clover, 7½@8½. California white in 60-lb. cans, 8c.; light amber in same cans, 7¾c.; amber, 7¼c. Buckwheat in kegs and barrels, 5½@6. Cuban, in barrels and ½-barrels, 65c. per gallon.
Sep. 26. F. G. STROHMEYER & CO., 122 Water St.

BOSTON

HONEY.—We quote: Best white clover 1-pounds, 17@18c.; best 2-lbs., 16@17c. Extracted, 8@9c. The sales are good, and indications are that all the honey in the country will be sold by Feb. 1.
Dec. 27. BLAKE & RIPLEY, 57 Chatham Street.

KANSAS CITY.

HONEY.—White 1-lbs., 16@17c.; fair, 14@15c.; California white 2-lbs., 14@15c.; amber 2-lbs., 12@13c.—Extracted, white California, 7½c.; amber, 7c.
BEESWAX.—None in the market.
Dec. 11. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—We quote: Extracted in barrels, 5@6c. according to quality; in cans, 7@8c. Comb, 12½@15c. Prices firmer on account of scarcity, though the demand is not great.
BEESWAX.—21c. for prime.
Oct. 17. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½ cents; light amber, 6@6½c.; amber, 5½c. Comb, white 1-lbs., 13@14c.; 2-lbs., 13c. Light amber 1-lbs., 12@13c.; 2-lbs., 11@12c. Demand very active for extracted, and fair for comb honey.
BEESWAX.—20@21c.
Nov. 6. SCHACHT & LEMCKE, 122-124 Davis St.

One Day Later.—Heretofore we have closed the forms of the BEE JOURNAL on Saturday, and the printing was commenced on Monday morning. This arrangement often excluded news and announcements of importance which came to hand on Monday, two days later. To prevent this, in the future, we shall keep the forms of type open Monday forenoon; the press will then be started, and the folding, stitching, trimming and mailing will all be completed by Wednesday at 5 p.m., when the JOURNAL will be put into the post-office—*just one day later than usual.* We give this notice to prevent disappointment to those who have been getting their copies on a particular train and day—look for it 24 hours later, and you will not be disappointed. This gives us the advantage of *two days*, while the mailing is delayed only 24 hours.

When you send us your subscription for 1889, please send the subscriptions of your neighboring bee-keepers, and to pay you for your trouble, we will send you, as a premium, anything you select from our Catalogue to the value of 25 cents on each dollar subscription sent.

Let Every One who believes in defending "our pursuit" against the attacks of the misguided and preverse, join the National Bee-Keepers' Union, by sending a dollar to this office. It only costs a dollar a year, and every bee-keeper should be a member.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

Advertisements.

SECTIONS, first-class, $3.00 per 1,000, and **Foundation** cheaper than ever. Dealers will do well to get our Prices. **Alsike Clover, Japanese Buckwheat,** &c. Free Price-List and Samples. **M. H. HUNT,**
2E13t BELL BRANCH (near Detroit,) MICH.
Mention the American Bee Journal.

We have some **ELEGANT RIBBON BADGES,** having a rosette and gold Bee, for bee-keepers' use at Fairs, Conventions, etc. Price 50 cents each, by mail, postpaid.

THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL.

Western BEE-KEEPERS' Supply Factory.

We manufacture Bee-Keepers' supplies of all kinds, *best quality* at *lowest prices.* Hives, Sections, Foundation, Extractors, Smokers, Crates, Veils, Feeders, Clover Seeds, Buckwheat, etc. Imported Italian Queens. Queens and Bees. Sample Copy of our Bee Journal, **"The Western Bee-Keeper,"** and **latest Catalogue** mailed **Free** to Bee-Keepers. Address
JOSEPH NYSEWANDER,
DES MOINES, IOWA.
°Ctf
Mention the American Bee Journal.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Jan. 19, 1889. No. 3.

EDITORIAL BUZZINGS.

Dr. C. C. Miller has just returned from Colorada, whither he went to attend the funeral of a brother-in-law. Death seems to have been quite busy in the Doctor's family lately. We are glad to know that he has returned in safety.

Mr. J. Y. Detwiler has returned to New Smyrna, Fla., and on New Year's Day he gathered a bouquet of sweet-scented flowers, and sent them to this office—for which he has our thanks.

Hon. R. L. Taylor, a well-known apiarist of Michigan, has been elected to the State Senate. That body has gained in him another able, conscientious and practical member—one that will be an honor to it and to the State.

The Weather, says Prof. Cook, in a letter, on Jan. 5, is "delightful for winter—regular Spring weather." And so it is in Illinois as well as Michigan. In fact both Europe and America report the same mild winter weather. We do not remember the like as far as our memory can reach. The bees have sported in the sun almost daily.

"Langstroth on the Hive and Honey-Bee, revised, enlarged and completed by Chas. Dadant & Son," is the title of a new book just placed upon our desk by the publishers. It contains 535 pages, 16 full page plates, and 197 illustrations. It is excellently printed on good paper, and substantially bound in cloth.

As the matter for the BEE JOURNAL was all prepared before it came, we must defer a review until our next issue.

The price is $2.00, and it may be obtained at this office.

The Election of officers for the National Bee-Keepers' Union, just held, resulted in the re-election of the old Board, as will be seen by the following, which gives the vote in detail:

FOR PRESIDENT.—James Heddon 95, G. M. Doolittle 6, Dr. C. C. Miller 5, Prof. A. J. Cook 3, A. I. Root 2, Single Votes 6, Blank 8.

FOR VICE PRESIDENTS.—Prof. A. J. Cook 108, A. I. Root, 106, Dr. C. C. Miller, 105, G. W. Demaree, 105, G. M. Doolittle 104, James Heddon 11, Ch. Dadant 9, Eugene Secor 5, Scattering 22, Blank 10.

FOR GENERAL MANAGER, SECRETARY AND TREASURER.—Thomas G. Newman 114, G. M. Doolittle 1, Blank 10.

While the General Manager has no desire to continue in office and would welcome a successor, it is very flattering to notice that he received *every vote but one*, and that ballot recorded a vote for him for President instead, and of necessity required another name for Manager.

Now, will the coming year be simply a repetition of former years? Or, will thousands of bee-keepers flock to the standard and unite with their brothers in defense of the pursuit of apiculture?

Robinson, the one whose abuse of Father Langstroth was noticed in an editorial on page 835 of last year, has raised the ire of our friend Henry Alley, of the *Apiculturist*, who writes us as follows:

I read your remarks and comments regarding the abuse of Mr. Langstroth by C. J. Robinson, in an "Eastern publication." As there are no less than three *Eastern* bee-publications, would it not have been better to have named the particular paper to which your remarks have reference? Why leave your readers to guess which of the Eastern "bee-publications" would stoop so low as speak otherwise than respectfully of one held in such high esteem by all good men as is Mr. Langstroth? Have the courage, Brother Newman, to speak out in meeting. Hurl your remarks (the justice of which we all acknowledge) direct at the editor who admitted to his paper such an article as you mention, concerning a man so honest and pure as our friend Langstroth. The paper to which you allude has not been received at our office. If one comes to hand we shall not hesitate to mention the name of it.

A few years since, this same Robinson tried his luck in getting some goods here on the plea that he would give us a "puff" in some of the bee-papers. Just at that time our goods needed no special "puff," as we had more orders than we could fill. Nevertheless we got the "puff" just the same. But the free advertising given us was not calculated or intended to increase the sale of our goods. But it really did help us, as hundreds of bee-keepers well knew that the author was only venting his spleen at our (supposed) expense.

Oh, yes, Bro. Alley! We omitted the name simply to avoid any feeling, hoping that the editor would apologize for the matter—and not because we had not the courage to particularize. Now that the name is called for, we will say that the article appeared in the *Bee-Keepers' Magazine* for November, 1888, page 325. Such attacks cannot injure the reputation of Father Langstroth—but they are contemptably mean, all the same.

Bees and Grapes.—It has been proven over and over again that bees do not puncture sound grapes in order to obtain the juice. It is true that they have often been seen to suck up the juice from such fruit as they find the skin already broken, and uninformed or unthinking persons then jump to to the conclusion that the bees do injure sound grapes. A correspondent in the *Fruit Growers' Journal* gives the following as the result of investigations made through a microscope, of the bee's tongue:

Dr. James McBride and I have just turned away from the study of the bee's tongue through the microscope, perfectly satisfied that the bee cannot penetrate the outer skin, or even the second skin of the grape. This is also the decision of the leading entomologists, and the scientists of the government have so decided. It would be precisely as if a painter should try to bore a hole through an inch plank with an ordinary paint brush, for the point of a bee's tongue is a microscopic brush, which, if pressed on the outer skin, would spread out like the brush of a painter, and refuse the desired entrance. But when the grapes here and there are pierced by other insects or birds, and most of the juice is left to rot in juxtaposition to the sound and unbroken grapes, the contagious rot would go on from grape to grape until the whole bunch would be ruined, were it not for the useful bee, which immediately plunges its brushy tongue into each orifice and extracts the veasty must from the broken hull, and dries up in a short part of a day all the offending matter, and as a scavenger, saves the fruit from inevitable destruction. The bee is too smart to plunge its sting into a grape, and it is only to save or prolong life that it stings a mortal.

Prohibitory Tax.—The *British Bee Journal* for Dec. 20, quotes the following item from the "St. James' Gazette:"

So extensive has the adulteration of honey with glucose become in America, that, efforts are being made to obtain Federal legislation, after the pattern of the oleomargarine law, to prevent it, by levying a prohibitory tax on spurious honey. No doubt the demand for American honey in foreign countries has been greatly diminished by the sophisticated character of the stuff exported in recent years, which is more like refined molasses than the delicate produce of the bee.

It then adds: "We congratulate our Transatlantic brethren on this step in advance, and sincerely hope that success may attend their efforts.

"Oh, thanks awfully," Brother Cowan, but there is no truth in the item from the *Gazette!* The adulteration of honey with glucose is a thing of the past. The price of liquid honey is so low that it would not pay. We say most emphatically that no steps have been taken "to obtain Federal legislation after the pattern of the oleomargarine law" *or any other pattern*, "to prevent it, by levying prohibitory tax on the spurious article!"

Such a tax would avail nothing—it does not prevent the manufacture or sale of oleomargarine; that is made in greater quantities to-day than ever before.

Our British cotemporary creates a *false* impression, and it would be only just to Americans for it to correct the same, or else copy our most emphatic contradiction of the assertions of the *St. James' Gazette.*

JANUARY.

"Janus am I, oldest of potentates!
Forward I look and backward and below,
I count—as God of avenue and gates
The years that through my portals come and go.
I block the roads and drift the fields with snow,
I chase the wild-fowl from the frozen fen;
My frosts congeal the rivers in their flow,
My fires light up the hearths and hearts of men."
—*Longfellow.*

GLEAMS OF NEWS.

Fined for Adulterating Honey.—We notice in the *Bee-Keepers' Magazine* for December, 1888, just received, that under the New Jersey law against adulteration of food, one man has been fined $50 for selling adulterated honey. We are given no particulars, but presume it was the ordinary glass jar of glucose with a little "floating island" of comb honey in the centre. Here is what the *Magazine* says about it:

It is gratifying to note that G. Volner, of Jersey City, agent of Charles Israel, of New York, was tried before the First District Court of Jersey City, and was convicted of selling adulterated honey, and fined $50. This was accomplished through the efforts of Commissioner Newton, of New Jersey. We hope those who have decried his good work, will please take notice.

This is a wholesome lesson, and one likely to be remembered by the parties who have handled the adulterated honey of F. G. Strohmeyer & Co., McCaul & Hildreth, and others named in the list published some months back in the *Magazine*. We think these "honorable gentlemen" (?) will have a smaller sale of glucose and honey in New Jersey after this. Every bee-keeper should uphold Commissioner Newton in his efforts to overthrow, as far as his jurisdiction permits, the adulteration of honey. Let us all join and condemn them as heartily as we do Prof. Wiley.

We are glad to see the law enforced at least in one State against those who adulterate articles of food, and sell them as genuine, for ill-gotten gain.

Cases are *very few* where it is profitable to adulterate honey (for no one will do it at a loss, just for "the fun of the thing"), and if New York merchants have "aided and abbetted" the New Jersey man, they should suffer with him, and be condemned by all honest and conscientious persons. In this we clasp hands with Bro. Aspinwall, and demand honesty and purity in all kinds of business.

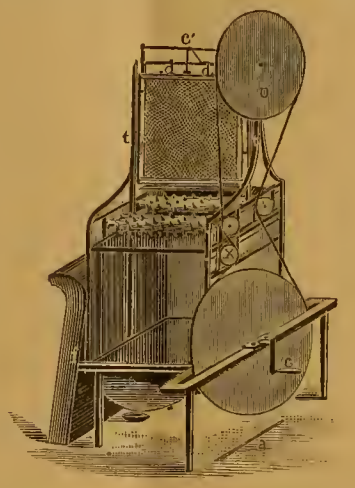
A Cough Remedy.—This is the season when coughs and "colds" are very prevalent, and very disagreeable to have. Many are the remedies recommended, but all are forgotten from one cough or cold to the next time that we may be afflicted. The *Northwestern Agriculturist* suggests the following excellent remedy, which is a simple flax-seed tea, made thus:

Pour over an ounce of whole flax-seed, a pint of boiling water; let the tea stand on the back of the stove for twenty minutes, then strain, and add the juice of three lemons, and honey and loaf-sugar to sweeten.

Muffling the throat is one sure way of courting tenderness and soreness in that region of the body. Honey is highly recommended for all affections of the throat and respiratory organs; and bee keepers should not lack for that simple article of medicine, and recommend it to others.

A New Uncapping Machine.—The *British Bee Journal* has the following concerning this new invention, and thinking that Americans would like to see an engraving as well as description of it, we reproduce the article and illustration:

Since Count Zorzi first introduced an uncapping machine, there have been several others introduced to bee-keepers, but the objection to most of them has been that they were either too expensive, or that they did not work satisfactorily. They have in consequence not come into use, and to become general they must come down in price, like extractors have done. The knife-machines intended to uncap both sides at one operation, are either noisy, or, unless the knives are kept as sharp as razors, they tear the combs. The first improvement in the right direction was the substitution of a revolving cylinder having projecting points in it something like the cylinder of a barrel-organ. It was introduced by M. Prochask, in 1886, and was illustrated in the *Deutsche Illustrierte Bienenzeitung* of July of that year. The cylinder was vertical, and the comb which was fixed in a frame was pushed past it, much in the same way as the frame is pushed past the knives in Mr. Hooker's patent machine.



M. Peter Wagner, of Kreuzstatten, has just brought out an improvement which, while simplifying the machine, also reduces its cost. It will be seen by referring to the illustration, that the apparatus consists of a square tin can, from which the side *f* is removed to show the interior. The comb to be uncapped is placed into the upright frame, *d d*, which slides up and down the guide-rods, *t t*. The two horizontal cylinders are of wood, and have a number of iron points stuck into them. When revolved at a high speed the cappings of the comb are removed by these points as clean as though they were cut off with a knife. The cylinders can be adjusted for combs of different thicknesses, and the proper speed is obtained by turning the handle c, attached to a disk over which passes a cord. A small wheel, *x*, is placed in the position seen in the illustration, to give the cord a firmer grip of the pulley on the cylinder. The same mechanism that revolves the cylinders is made to lower and raise the frame. The wheel, o, revolves the spindle attached to it, and on this a cord is wound which raises or lowers the frame. The bottom of the can is coned so that the honey can run out and be collected in a vessel placed for its reception. The side, *f*, is movable, and, as will be seen, is turned over at the top in such a way as to cover the cylinders, and prevent splashing of honey.

Preventing Spring Dwindling.—After a mild winter there is generally considerable danger of the bees dwindling in the spring following. The *Bee-Keepers' Guide* for this month gives this caution to the inexperienced:

The mild weather between November and December makes it certain that the winter is to be a short one, and it is helping out the bees which were not in the very best condition. The unfavorable weather during the fall caused an unusual decrease in the brood; and, with a severe, long winter, very serious results might come of it. We should avail ourselves of all the advantage of the weather, and be aware that there are still chances for a change that might be very disastrous to the bees.

If the temperature continues so high during January, the bees are likely to commence brood-rearing, and in this case, if February or March should be cold or favored with a great amount of snow, the greatest care will be necessary to prevent the brood from chilling, and the colonies to finally spring dwindle until all is lost.

If the snow becomes deep around the hives, and there is a prospect for a thaw, shovel it clear away from around the hives. Wet snow chills the brood and bees while dry snow retains the heat of the cluster of bees, and is on this account a benefit.

It will be found profitable to pack colonies with chaff, even in such winters as this, as it keeps the bees quiet, prevents brood-rearing, and holds the snow further away from the hives, so that it will not have so great an effect on the brood-nest when it melts.

If there are any bees still unprotected, we would advise it to be done; do not flatter yourself with the idea that the mildness of the weather makes it unnecessary. The greatest loss of bees we ever knew of, extending over the greatest scope of country, occurred during the March following a mild, open winter; so mild that the bees flew a number of days during February. The low price of honey, and the competition now will not permit of any neglect or any losses by carelessness, if one expects to make any profit out of the business.

Peach-Blow Cheeks and rosy lips, deep blue eyes and curly auburn hair, are possessed by the lovely girl whose face adorns Hood's Sarsaparilla Calendar for '89. She wears a dainty bonnet, and the head is "cut-out" so as to look quite realistic. Hood's Calendar is easily the best of its kind, and like the Sarsaparilla it represents, is a good thing to have in the house. The pad harmonizes with the exquisite array of color above, while the dates are easily read. Hood's Calendar may be obtained of your druggist, or by sending 6 cents in stamps to C. I. Hood & Co., Lowell, Mass.

Now that Sorghum is once more attracting the attention of farmers throughout the country, it is well to know that the Sorghum Hand-Book, a valuable treatise on the cultivation and manufacture of Sorghum, may be had free of charge on application to the Blymyer Iron Works Company, Cincinnati, O.

Conundrum.—Why is a bee's occupation similar to that of a merchant? Don't they both *sell combs?* Next.

QUERIES AND REPLIES.

Management to Prevent the Building of Drone-Comb.

Written for the American Bee Journal

Query 605.—My bees are in Simplicity hives, with Langstroth frames, being home-made, and do not give entire satisfaction. I intend to get a better quality of frames and transfer the bees. 1. How would it do to place the new hive under the old one, and let the bees build comb naturally? The queen would lay below, and the honey would be placed above. After the brood had all hatched above, and the upper story was filled with honey, I could extract it. 2. Would I get drone-comb built below in this way, or is there a better plan that would disturb the bees less, or cause less loss of time and brood? —Louisiana.

I hardly think that the proposed plan would work well, but a trial of it will tell you.—G. M. DOOLITTLE.

Your plan is an excellent one, though you would have to look out for drone-comb.—WILL M. BARNUM.

1. Your plan would not work in Southern Michigan. 2. I would prefer to crowd, and let them swarm; then you could start with new hives, frames, etc.—H. D. CUTTING.

1. I should not like it. 2. You could count on plenty of drone-comb. It would be better to transfer the good combs, and use foundation for the balance.—C. C. MILLER.

Your plan is one that has many times suggested itself to beginners, but as many times as tried, it has proven a failure. "Modern transferring" is the best plan of all. See bee books and papers.—JAMES HEDDON.

It would do well. Read Mr. Hutchinson's book on how to get comb honey. I should use starters, or full sheets of comb foundation, as I recommend in my book.—A. J. COOK.

Your idea is a good one, only I would modify it so much as to fill the frames of the new hives with foundation. This would be the only sure way to avoid an excess of drone-comb. —J. M. SHUCK.

The Langstroth frame is good enough, if you make it right. Cut the comb out of the "botched" frame, and fasten it in the "well-made" frame with wired sticks, and let the bees keep on at work.—J. P. H. BROWN.

If I tried that plan, I would want to put the queen in the lower hive, and keep her there by a queen-excluder. In that case I think that the bees would build worker-comb; or you can use foundation in the new hive.—EUGENE SECOR.

1. I think that you had better transfer in the early spring; cut out the comb and fasten it in the new frames, and put it directly in the new hives. 2. Probably not; at least only a portion of drone-comb. — MRS. L. HARRISON.

The best way is to cut the combs out of your frames and fit them into the new frames. If the combs are too crooked, or built across the frames so that they cannot be removed separately, I would transfer *a la* Heddon. —P. L. VIALLON.

1. It would probably do; but why not transfer them by the Heddon method? That would certainly be better in every way. 2. You would get plenty of drone-comb below, unless foundation or comb was used.—C. H. DIBBERN.

1. If the colonies are strong, and honey is being gathered in sufficient quantity, and a queen-excluding honey-board is used, your plan might work well. 2. Some drone-comb would be pretty surely built, and it might be mostly drone-comb. By using foundation the building of drone-comb would be prevented.—A. B. MASON.

Your way is too slow. If you do not want to use comb foundation, we would advise you to transfer all the worker-combs that are not too old. Remember that if you give to your queens too much room, the workers will build store, or brood, combs mainly. — DADANT & SON.

1. Use whole sheets of foundation by all means. I have not found the plan stated, to work well with myself. 2. Yes, unless great care and watchfulness is used, and much labor performed in cutting drone-comb out as fast as it is built.—J. E. POND.

I was once in the same fix with 60 colonies. I took them into my honey-room one at a time, removed a comb at a time, and cut the frames, comb and all, to the standard Langstroth dimensions; and having hives at hand properly cut, I transferred them into the new hives, as I made the change in the frames. 1. I think that my plan is preferable to yours. 2. You would get lots of drone-comb.—J. M. HAMBAUGH.

1. It would not do well. 2. Yes, generally. When the colony is strong enough to swarm during the swarming season, drive a swarm from it into the new hive having frames filled with foundation, making sure that the queen is with the swarm. In 21 days shake the bees still in the old hive into another new hive, and you have the old combs clear of bees and brood.— R. L. TAYLOR.

1. The queen would continue to lay above until she had plenty of room below, and until the combs above were full of honey. The plan will not work successfully. 2. You would get too much drone-comb. About swarming time, shake the bees from the combs in the old hives, and let them run into the new, leaving only enough to care for the brood. Have the frames of the new hive filled with foundation, and three weeks after unite the bees in the old with those in the new. Or transfer the combs to the new frames. The latter would be my preference.— M. MAHIN.

1. I do not think that your plan will give satisfaction. I would put a set of frames filled with foundation above the brood-nest, and use them to take a crop of honey with the extractor; and in the fall, after the brood was all out of the combs below, I would exchange the set of combs, putting the new ones in the place of the old ones. 2. Most likely too much of it, besides a waste of time and honey.—G. W. DEMAREE.

Why not let the bees swarm, and then you can give them a new hive filled with comb foundation, and prevent them having too much drone-comb?—THE EDITOR.

Sources from Which Propolis is Gathered.

Written for the American Bee Journal

Query 606.—1. From what flowers do bees gather propolis? 2. Is it packed upon the drum of the legs the same as bee-bread when brought in. Forty years ago, in the wilds of of Wisconsin, when there was nothing but the wild flowers for the bees to work on, the bee-trees that we found were waxed up with it, the same as the hives of to-day. The wild flowers have been gone for years, but the propolis comes in the very same, and looks and tastes just the same as it did in those early days. The bee has nothing to work on now, that it did in those days, but the basswood.—Wisconsin.

1. Many trees furnish propolis. 2. Yes.—H. D. CUTTING.

1. From buds, not flowers. Hickory, horse-chestnut, etc. 2. Yes. There were buds then as now.—A. J. COOK.

1. Here, from a posy called a pine-tree. 2. Yes. Bees gather propolis from resinous weeds, trees, etc.—from many sources.—JAMES HEDDON.

1. Chiefly, I think, from the buds of resinous shrubs and weeds.—EUGENE SECOR.

1. None. They gather it from the leaf-buds of poplar and and other trees. —C. C. MILLER.

Propolis is an exudation from the wood part of the tree or plant, and not from the flower. The pine, balm, gum, various fruit-trees, etc., yield it. —J. P. H. BROWN.

Bees do not gather it from flowers, but from different trees. Propolis is a gum, or an exudation, like rosin.— DADANT & SON.

1. It is gathered from resinous buds, such as the hickory, pine, horse-chestnut, etc. 2. Are you sure that it is

packed upon the legs, the same as bee-bread? If so, this is contrary to the supposition that I have heretofore had. —WILL M. BARNUM.

1. Propolis is not gathered from flowers, but is obtained by the bees from the resinous buds of trees, etc.—P. L. VIALLON.

I am not aware that bees gather propolis from flowers, but I have seen them gathering it from buds.—A. B. MASON.

1. They do not gather it from any kind of flowers, but from the leaf-buds of certain kinds of trees, principally from what is popularly called "cotton-wood." 2. Yes.—M. MAHIN.

From the asters, buds of the hickory, from any plant which secretes a resinous substance, or from a newly-varnished buggy.—MRS. L. HARRISON.

1. I do not know that they get from flowers. 2. I have seen bees gathering it from sumac at the axillæ of the leaf-stalks, and from the buds of the balm-of-Gilead.—R. L. TAYLOR.

1. In this locality, propolis comes largely from the buds of the balm-of-Gilead and poplar. I think that propolis never comes from blossoms. 2. Yes.—G. M. DOOLITTLE.

1. They do not gather it from flowers at all. It is a resinous gum that exudes from various trees. The so-called "balm-of-Gilead" is the great source of propolis in my own locality. —J. E. POND.

This is a subject of which I know but little from personal observation. Father Quinby says: "Propolis is doubtless the gum or resinous coating which protects the buds of many kinds of trees."—J. M. HAMBAUGH.

I do not *think* that bees gather propolis from flowers at all. I believe that propolis is gathered only from the leaves and boughs of resinous trees, and your statement would seem to confirm this view.—C. H. DIBBERN.

1. It is gathered mostly from the swelling buds of trees and plants. I have never seen it taken from flowers. Hickory furnishes much, also cotton-wood, balm-of-Gilead, sweet gum, etc. 2. It is packed much the same as pollen. It was doubtless the propolis that suggested to the ancient bee-folk that bees carried pebbles for ballast.—J. M. SHUCK.

1. I know of no flowers that furnish propolis for the bees. In my locality bees gather propolis from cedar trees, hickory, walnut, and other resinous trees. They also collect paint from decaying wood, and even old pitch from wagon hubs, etc. Pure propolis is a "gum" that oozes from the limbs and trunks of certain varieties of trees, and is collected by bees.—G. W. DEMAREE.

1. The leaf-buds of shrubs and trees yield propolis—it does not come from the flowers. 2. Yes. Fruit and other trees supply it, by the exudation of a gummy substance.—THE EDITOR.

CORRESPONDENCE.

HIVES AND BEES.

Written for the American Bee Journal
BY D. C. BUCK.

A bee-man by the name of Dowell,
Went to the Tri-State Fair,
And with his son he walked around,
To view the wonders there.
That newly patented hive, he said,
Will take the highest prize;
But the Langstroth does just as well,
And better, to my eyes.
I know it s what some bee-men call "slow"—
But I think it is the safest way to go.
Some bee-men might think it strange,
But, really, I shouldn't like to change.

Those Albino bees do look so white,
But don't have near so large a girth,
Nor come up to my Italian bees—
But I know what my bees are worth.
They're good cell-builders, and good to fly,
And stronger workers I never saw—
The Italians are the bees to buy,
And in them none can find a "flaw."
Some bee-men, perhaps, might think it strange,
But, really, I shouldn't want to change.

I heard that Carniolan queen did cost
A good five dollars. Now,
Said Jacob Dowell, my Italian queen
Will beat her laying, anyhow.
I'm sure her progeny are the best,
And they are marked the yellowest.
Some bee-men might think it strange,
But, really, I shouldn't want to change.

As bee-man Dowell and his son
Rode homeward from the Fair,
He said: I wish my hives and bees
Had all of them been there.
And if the judges had been wise,
We might have taken every prize.

Dundee, Mich.

WINTERING.

A Conversation about Wintering Bees in the Cellar.

Written for the American Bee Journal
BY G. M. DOOLITTLE.

Before me is a postal card which reads as follows: "This being my first experience in wintering bees in the cellar, I am not sure whether my bees are doing as well as they should, or not. Will you please tell, through the AMERICAN BEE JOURNAL, how bees should appear, to be wintering well?"

This used to be a point which bothered me considerably, when I first began to winter bees in the cellar, and had it not been for the instructions on this subject, given by Mr. E. Gallup, in the AMERICAN BEE JOURNAL, and elsewhere, I might have made many more mistakes than many beginners now do.

In the first place, when the hives are placed in the cellar, they should be raised at least two inches from the bottom-board, if possible. As the years go by, I am led to believe more and more, that this was the reason that I did not succeed better in my first efforts at wintering bees in the cellar; for at that time I almost invariably left them down on the bottom-board, as in summer, and often with the entrance nearly closed, for it was thought then that something must be done so as to keep the bees in the hive during their sojourn in the cellar. But to the question, "How do I know when the bees are wintering well?"

To best illustrate, I will give a short account of what happened a short time ago: A neighor called to see how the bees were wintering, and to know how I fixed them and the cellar, for wintering those which were put in. I told him that my bees in the cellar were wintering well—in fact, I never had bees appear so nice and quiet as they do this winter in the cellar. After a little more conversation, I asked him if he would like to go into the cellar, to which he answered that he should, very much; but said, "I suppose that you never go into the cellar from the time the bees are put in, till you take them out, as I see it advised in the papers that it is not best to do so." I told him that I went into the bee-cellar whenever I wished so to do, and I did not consider that I did any harm by so doing.

I suppose that I am considered a heretic on this question; but be that as it may, I have every reason to believe that no scientific wintering of bees can be accomplished where no observations are taken.

As we were going into the cellar, a conversation about like this took place, which I will give, as that will help the reader to understand that which they wish to know better than they otherwise could: "What, have you got three doors to go through to get in?" Yes, these three doors enclose two dead-air spaces, so that the cellar is kept at a more even temperature than could possibly be obtained in any other way, and the temperature is the main thing to be looked after in cellar-wintering.

Now, before we open the other door, I wish to say that we must be careful not to strike any of the hives, or breathe on the bees, for we should be as careful not to disturb them as possible.

"What is that low murmuring noise which I hear?" That is the contented hum of the bees in their winter repose, and you can always know that the bees are wintering well, when 50 colonies make no louder noise than you now hear.

"But I supposed from what I had read, that bees 'hibernated' when wintering well, and gave no signs of life." In this you mistake, for bees never hibernate as do ants, wasps, flies, etc., but go into what would more properly be called a "quiescent state," in which you see these to be.

"Hark, there is a bee flying. Do they fly out here in the dark?" Yes; that is only a bee ready to die of old age, and as instinct prompts the old bees to leave the hive when the temperature will permit, it is only obeying nature's law in flying out. See, here are quite a few bees on the floor, but not nearly as many as is the average of most winters. I often come in here in the dark, and listen for these old bees; and many times before, this winter, from two to five would fly out while I was slowly counting 100, but this winter scarcely more than one comes out while I count 500.

"What have you on the floor here? Sawdust?" Yes, every month I bring in a bushel or more of fine, dry basswood sawdust, such as is made while sawing sections, and scatter it on the floor. This sawdust will absorb almost its bulk in moisture, so that I retain it here to keep all dry, sweet and nice. Before I used this, the dead bees on the floor would mold and smell badly, but now all smells sweet and nice, and no mold appears.

"Here is your thermometer. I see that it marks 45°. What are the extremes of temperature in here?" From 43° to 46° above zero, after the first few days when the bees are put in. The disturbing of the bees in putting them in, causes the temperature to rise for a few days, up to from 50° to 55°, but soon lowers to where it now is.

"What, doesn't a warm spell in winter, or a long, cold spell, have any effect on the temperature in here?" No; and a cellar that allows the outside temperature to affect to any extent the inside, I should consider faulty. There are two roofs, and three feet of dry earth between them, over this, which, with the three doors, keeps an even temperature. Now step up and look at these yellow bees as they show underneath the combs at the bottom. And again, look at them as I roll back the quilt at the top. See, they go from the bottom to the top of the hive.

"Why, Doolittle, they are dead." No, I guess not.

"But they don't stir." Let us breathe on them the least bit.

"They are alive; that is a fact. Do they always keep thus quiet?" I have never seen them more uneasy this winter; but the year I used artificial heat, and lost so heavily, I could not lift a quilt without their boiling all over the tops of the frames.

"Where are your ventilators?" Here, at this end, is what used to be the sub-earth ventilator, and in the back end is the upper ventilator; but I have not used either for some years, as I find that all the air which the bees need to keep them in the best condition, comes through the mason work, doors, and earth covering. This is what some would call no ventilation whatever; but you see that the air is pure and good in here.

"Well, I would not have believed that the air would keep so pure, if I had not seen it for myself. But don't the mice trouble you in here?" As you will see, many of the hives have a few fragments of bees on them, so you may know that there have been mice here; but there are no mice in here now, for they have been caught with a trap. The cellar-doors are left open during every fall, till the bees are put in, and hence a few mice are always in at first; but after the doors are shut, no more can get in. We will go now; but first notice that the bees are nearly, if not quite, as quiet now as they were when we first entered, a quarter of an hour ago. If our entering does not disturb them any, why should I not have the privilege of coming in here as often as I please?

Reader, I have tried to make all plain. If I have not done so, tell me wherein, and I will try again.

Borodino, N. Y.

SMOKE.

How to Use Bee-Smokers, and Avoid Stings.

Written for the Farm, Field and Stockman

BY S. E. MILLER.

Experience teaches me that bees are more apt to sting a stranger than the one who is in the habit of working with them. Bees have an aversion to any one who has a bad breath, caused by catarrh or other disease. In fact I am almost certain that bees have a dislike for anything having an unpleasant odor. Aside from the above-mentioned facts, there is no reason why one person should not be as capable of handling bees as another. That is, after becoming acquainted with the little workers, and learning their habits.

To avoid being stung, follow these rules: 1. Never wear black or dark clothing when working among bees. I learned soon after commencing to keep bees, that they were ready to make battle whenever I went into the apiary with black on, while with gray on I was not likely to be bothered. 2. Use the all important bee-smoker. This is the secret of handling bees. With a good smoker in full blast, I think that any one can handle them.

When you wish to work among your bees, get your smoker well fired up, so that you can send a big blast of smoke three or four feet from the nozzle, remove the cover of the hive, and then gently raise the cloth that covers the frames, give the bees a few puffs of the smoke, and if they go below, and are willing to mind their business, you can go on with your work. As a general thing this is all that is necessary with pure Italians. If you have blacks or bad hybrids they will be pretty sure to show fight and fly at you every time you make a move that they do not approve.

I generally pour the smoke upon such bees until they are ready to go below and submit. Whatever you do, keep your smoker in good trim, and always have it within reach. Then if you make an awkward move and excite their anger, you can grasp it in an instant and defend yourself. If several bees dart at your hand, do not jerk it away. If you do, they are almost certain to sting, but if you hold it perfectly still, they will generally alight and appear surprised that the hand remains quiet, and instead of stinging, will proceed to examine it. You can then take the smoker in the other hand and drive them off. It is a good thing to have a boy as assistant, to handle the smoker when you have much work to do among your bees.

3. Never allow bees to think you are afraid of them—on the contrary, have them afraid of you. Bees always detect the least sign of nervousness on your part, and will generally take advantage of it.

4. A beginner should wear a veil. It gives a feeling of safety.

Last, but not least, to avoid being stung, keep pure Italians—no black or hybrid bees.

Bluffton, Mo.

DO BEES HEAR?

The Various Sounds Made by the Bees.

Written for the American Bee Journal

BY C. E. WOODWARD.

This is a question that has been asked of me so many times the past few months, and by some of those who are readers of the AMERICAN BEE JOURNAL, as well as others, that I will try to give some of the experience and observations in my own apiary in 1885.

I would say that bees have different sounds to accomplish different ends. The only natural sound of bees on the

wing, is that produced by the returning laborer, when it comes home at evening laden with that delicious nectar, collected from some flowering field. Who has not been charmed by the sweet, mellow tones, as they died away in the entrance of the hive, like the wind that blows through the boughs of the tall pines of the mighty forest, during a summer sunset in August?

The shrill note of the pugnacious defender of the hive is familiar to every bee-keeper. The sharp sound of bees just beginning to lead out a swarm, heralds its advent to the bee-master, and is very different from the two sounds mentioned before.

The coarse, bass roaring of the swarm is heard only when they are locating their mother, and is kept up by both workers and drones, until the queen is found, and then the bass sound becomes silent.

Next is that sharp, cutting sound, as they begin to cluster in some shady tree, to call the colony together, which is well known to the apiarist, as the signal of congregating. Then comes that shrill, hissing sound of the escort, that led them to the woods; hence the sounds are blended with the roaring of the swarm, making a yet different sound than has been mentioned, and is heard only from absconding swarms.

Again, in that happy hour, when the bees have found or selected a habitation that is suitable for their brood-rearing, and storing the golden nectar, we then hear the happy sound made by hurling the wings in fantastic circles; this sound indicates that all is peace and harmony.

Another sound may yet be located, and that is the sound of distress. This sound is heard only when annoyed and frightened by the black volume after volume of smoke poured in upon them without mercy; and no wail of distress or misery, made by any other insect, can equal it.

There is another sound that I will call attention to, and that is the "ventilating" sound, made at the entrance and all through the hive, which in hot weather may be heard some distance away; hence all the different sounds are instinctively associated with certain purposes, and the movements of the queen are to a great extent generally governed by them. She thus follows certain sounds, as do the whole colony. She never leads the swarm, but the swarm leads her by their sounds. Bees do hear!

In the year 1885, the two queens that missed my attention swarmed from a populous colony at about 10 a.m., owing to their prolificness. They were unable to take wing, hence were obliged to retire to the parent colonies. I expected them to come out again about 3 p.m., but to my surprise, when the sun was near the meridian, out they came, filling the air with those distinguishable sounds, circling high, and each revolution becoming larger and larger, when they took a bee-line west, and away they went over the woods, old and young, queen, workers and drones. Again that shrill, hissing sound was in advance, leading the absconders to a place of abode; but owing to the prolificness of the queen, she was obliged to alight. As she happened to select a small sappling, I brought them back to the apiary, and hived them on drawn combs, and the result of that colony was 195 pounds of beautiful white comb honey.

Newbury, Ohio.

FREAKS OF BEES

Noted the Past Season—Report for 1888.

Written for the American Bee Journal

BY A. E. AULT.

It is my custom to make a record of anything unusual that I may notice in the apiary. I will give a few such items that were new to me, and which I think will be new to the greater part of the readers, as follows:

On June 14, I saw the bees attack and kill several cicadas, or locusts, as they are commonly called, which were very plentiful at that time. The same day I saw a queen return from a flight after she had commenced to lay.

On July 5 I saw a sealed queen-cell that contained a worker-bee, and a young larva. On July 13, I saw a sealed queen-cell that contained a queen in the pupa state and a worker-bee. In both cases the queens and bees were dead. On July 19 I saw a queen-cell with a seemingly well-developed queen, within about two days of hatching. The remarkable feature was, that the queen was in a reversed state, with her head in the bottom of the cell.

If any one else has noticed the same freaks of the bees, I shall be glad to hear of them.

In the fall of 1887 I had 47 colonies of bees, which I wintered without loss, although I united 3 colonies that were queenless, thus leaving 44 colonies. During the past season I increased them to 82 colonies, and obtained 3,500 pounds of honey, of which 300 pounds was in the comb, and the remainder was extracted.

Linden commenced to bloom on July 4, and lasted ten days; in that time my bees stored 2,000 pounds of honey. I also obtained 26 pounds of beeswax.

North Liberty, Iowa.

THE CLOVERS.

Different Clovers Considered as Honey-Producers.

Written for the Prairie Farmer

BY MRS. L. HARRISON.

Every bee-keeper should look ahead for pasture for winged stock; and among the sources of honey supply, the clover family stands first.

Of the forty native varieties, white or Dutch clover is at present most valuable, the amount of honey gathered from this variety being greater than from any other member of the *Trifoliums*, and the quality unexcelled.

Next in value, and one which will likely crowd its half-sister for a place in the front rank in the near future, is Alsike or Swedish clover (*Trifolium hybrida*).

Following this I should place our common red clover, which is so valuable for hay and pasture. The one and only reason why red clover does not occupy the first place is the depth of its honey-cells, which, in the majority of instances, prevents the honey-bees from reaching the nectar.

Some of our fraternity are endeavoring by judicious selection, aided by the law of the "survival of the fittest," to produce a strain of honey-bees with longer tongues, which can reach the rich nectar of the red clover. Any skillful bee-keeper could to-day well afford to pay $10,000 for a healthy and prolific queen, which would produce worker-bees able to work *freely* on the large heads of the first crop of the red.

Next as a honey-producer I would place sweet clover (*Melilotus alba*), and its field proper is not one-tenth occupied, nor its value one-half appreciated. It is a biennial, does not blossom the first year, blooms freely the second, and dies root and branch. It produces honey of fine quality, similar to that of the white clover; fowls pasture on it in the early spring, and sheep much of the season. Its capacity to withstand drouth, and to thrive upon rough, broken and gravelly ground, and its great value as a fertilizer and renewer of worn-out land should recommend it to every farmer who has land, particularly rough land, which needs renewing. Lastly among those which I shall consider in this article is:

Alfalfa (*Medicago sativa*). This was introduced many years ago on our Pacific slope from Chili; it has proven its great value as a hay and forage crop in California and Utah, and is fast coming to the front in Central and Western Kansas and Colorado.

Mr. Wm. Muth-Rasmussen, a reliable bee-keeper of Independence, Calif.,

reports seeuring over 5,000 pounds of comb honey from Alfalfa. It is a very quick grower, and will mature the first crop in about two months from the time that growth commences, the second in about six weeks from cutting, and the third in about five weeks, and yields on an average 5 to 6 tons per acre.

Many flattering reports have come, and are still coming to me, coneerning Alfalfa. It will search for water like a well-digger, and in a sandy soil, go down 10, 12, 16, and even 20 feet. The roots are from 1 to 1½ inches in diameter, and fully ½ of that root decays every year from the outside, at the same time growing larger from the centre.

Let no one who has sown Alfalfa get discouraged if it is small and spindling the first season. You can get no crop from it the first year, the second year a fair crop, and the third it is as good as it will ever be. It is a perennial, of the clover family, but will out-yield red clover for hay, two to one, and unlike it, never falls down, but, like a good soldier, stands up straight.

Peoria, Ills.

CARNIOLANS.

Their Good Qualities and Different Management.

Written for the American Bee Journal
BY F. A. LOCKHART.

I commeneed the season of 1888 with 25 colonies, 20 of which were Carniolans, and 5 Italians, and I increased them to 30 colonies. The season was the poorest one since I have kept bees. I got only one-eighth of a honey crop.

The Carniolans were the only colonies that gave me any surplus. I had them side by side with the Italians, and I gave the one variety as much attention as the other, but the Italian colonies would not enter the surplus receptacles, and I could not get them to do so with any amount of coaxing. They were strong in bees, and filled their brood-chambers full of honey; but that is all they would do. The Carniolans filled their brood-chambers and gave quite a surplus besides. I never saw bees cap their honey so rapidly, and with such snowy whiteness as the Carniolans do.

Some may think that I had a poor strain of Italians. If I had, they were from the progeny of 3 queens from our best queen-breeders. I used to think that there were no bees like the Italians, but I have discovered my mistake, and have discarded them.

I have never seen any strain of bees that had so many good points as the Carniolans possess, all points being considered. They have a little more propensity to swarm, than have the Italians; but why do they have a tendencey to swarm oftener than the Italians? Because they are more prolific than either the blacks or Italians, and for that reason they need to be managed in a different way. Give them plenty of room, and they will make use of it.

My plan for working the Carniolans is as follows: Hive the swarm with the old queen on the stand from whence they came; place the old hive in a new loeation, and give the colony that is left a young laying queen. Cut out all queen-cells before giving the queen, and cage her at least for 24 hours. If you have no young laying queen at hand, cut out all but one queen-cell, and let them rear a queen.

My bees are all in the cellar, and to all appearances they are wintering well.

Remedy for Bee-Stings.

The best cure that I have found for a bee-sting is this:

Take equal parts of soda and vinegar, and rub it on the place stung, while the stuff is fomenting. It will give relief immediately.

Lake George, N. Y., Dec. 24, 1888.

CANADA.

Report of the Brant Bee-Keepers' Convention.

Written for the American Bee Journal
BY R. F. HOLTERMANN.

The annual meeting of the Brant Bee-Keepers' Association was held in the Court House at Brantford, Ont., on Dec. 29, 1888, with President Anguish in the chair. Owing to the expected presence of Mr. S. T. Pettit, of Belmont, an ex-President of the Ontario Bee-Keepers' Association, and a well-known bee-keeper, the attendance was good.

After the necessary business required to close up the year 1888 was transacted, the election of officers took place, which resulted as follows: President, J. R. Howell; Vice-President, T. Birkett; and Secretary-Treasurer, R. F. Holtermann.

The following representatives were elected, as required by the Ontario Bee-Keepers' Association: R. F. Holtermann, D. Anguish, and G. W. Barber, who were delegated to place the views of this Association upon important matters, before the Ontario Bee-Keepers' Association at Owen Sound.

On motion the representatives of the Brant Association were asked to invite the Ontario Bee-Keepers' Association to meet at Brantford for their next annual meeting, in union with the International Bee-Association, which was carried unanimously.

Suppression of Foul Brood.

The question of the desirability of taking means to suppress foul brood was brought up.

S. T. Pettit was asked if the Ontario bee-keepers were not trying to secure legislation in this direction. He replied that such a step had been thought of, and some action in that direction taken, but the matter had been dropped; that there was no doubt that the the disease was spreading. He had lately been at the annual meeting of the Oxford Bee-Keepers' Association, the Secretary of which (Mr. Frith), had, after trying almost everything recommended, destroyed probably over 100 colonies, and it was in that neighborhood. It was reported that prominent queen-rearers and sellers of bees had the disease in their apiaries, off and on, for a number of years, and inspectors should be appointed by the association to inspect any one's bees that they saw fit, who offered them for sale. This would either exonerate any one falsely accused, or prevent bee-keepers from having the disease spread broadcast over the land.

All appeared to see the wisdom and justice of such a course, and, on motion, it was unanimously decided, in view of the fact that foul brood is reported, and known to be spreading in the Dominion, that we respectfully suggest that the Ontario Bee-Keepers' Association appoint inspectors to go through the country and report the condition of any or all apiaries of those selling bees, and also to ask the Ontario Legislature for legislation to prevent the spread of the disease.

Ventilation of Bee-Cellars.

Mr. Phelps introduced the subject of ventilation, by remarking that bee-keepers appeared to have almost concluded that bee-repositories did not require ventilation. He had stopped up his ventilator without any apparent injury; his cellar was, however, not built very tightly.

Mr. Pettit stated that it was the third year he was wintering bees in a cellar; the cellar was built tightly; he had carefully superintended the work, and allowed no slighting in its construction. He thought that it would be almost water-tight, besides it was built in hard clay, and the whole cellar below the level of the clay. He has a sub-earth ventilator, which regulates the temperature. It is 215 feet long,

6 feet below the surface, and part of the distance the one end enters the cellar, the other terminating by a pipe several feet along the surface of the ground. There was a drain below the pipe, to keep the air-pipe from acting as a drain and containing water. The degree of cold outside made some change in the temperature, as it entered the cellar; also the velocity of the wind. The temperature of the cellar ranges from 38° to 40°, generally; at that temperature there appeared to be no breeding, and the bees seemed to come out vigorous. At 45° to 48° more bees died, and they consumed more stores, and would breed.

W. R. Brown—My cellar is very dry, and the temperature ranges from 35° to 37°. I have never lost a colony.

Mr. Pettit—Of course the covering over the frames makes a difference. If much covering is used, the temperature of the hive is higher than if there is not so much covering.

President Anguish said that much depended upon the soil the cellar is in. In reference to outside and inside wintering, bees wintered outside would dwindle less in the spring than those kept inside. He gave his experience in burying bees.

Mr. Pettit said that burying bees would be a thing of the past in Canada. It was important to have ventilation inside or outside regular.

R. F. Holtermann reported that his bees appeared to be doing nicely. There were very few dead bees, and the rest were very quiet.

A vote of thanks was unanimously accorded to Mr. Pettit for his presence, to which he replied in a pleasant manner. R. F. HOLTERMANN, *Sec.*

LAYING WORKERS.

My Experience with Laying Workers, etc.

Written for the American Bee Journal

BY FRED BECHLY.

Last summer I had a colony with laying workers. I divided it into four parts, and gave a young queen to each part. Two of these small colonies had laying workers, and these workers continued to lay, until the queens were mated and laying; after that I could tell nothing more about them.

Now it would seem that the laying workers do not destroy queens, but are, nevertheless, the cause of some trouble. They seem to cause a division in the colony. It looks as if some of the bees consider themselves queenless, while others do not; some build queen-cells, while others destroy them.

I commenced the season of 1888 with 22 colonies, increased them to 33, and obtained 930 pounds of honey—about 60 pounds being comb honey, mostly gathered from fall flowers.

Care of Surplus Combs.

I take the combs from the extractor without allowing the bees to clean them, and store them away in empty hives, or surplus cases. I crowd from 12 to 13 frames into a 10-frame Langstroth hive. I find the moths do not like to lay their eggs in combs wet with honey. Of course the hives must be closed against bees.

Searsboro, Iowa, Jan. 6, 1889.

QUEENS.

Renewing the Vigor of a Colony by Giving a New Queen.

Written for the American Rural Home

BY J. H. ANDRE.

If the majority of bee-keepers that keep black or hybrid bees, knew how easy a matter it is under ordinary circumstances to introduce a queen, bee-keeping would advance with a zeal never known before, within the next five years.

Suppose one has a few colonies in his apiary that are only just holding their own, while others are storing surplus. An examination reveals the fact that it is a weak colony from the cause of a poor queen. If you destroy such a queen, and allow the bees to rear another, you lose from 20 to 30 days' time, according to whether they take eggs just laid, or larvæ, from which to rear one. After all, you may have an inferior queen by this method.

If you wait until it is too late for them to rear a queen from their own resources, and destroy all queen-cells, giving them eggs from another colony, you lose a longer period of time. Therefore, taking the loss of time and change of blood into consideration, it is a better way to send to some reliable dealer for a queen.

The combined "shipping and introducing cage" I do not like, as it is too large, and admits the chance of giving the bees too much shaking in transit; also it is apt to warp or swell, rendering it almost impossible to draw the tin slide. Then when you try to put it in the hive, it will not slip in between the regular space between two frames; and last but not least, one must destroy larvæ and brood in pushing the tins through the combs, and where the cage rests against the face of the combs, brood is frequently destroyed also.

The shipping-cage used by G. M. Doolittle suits me well. It is 2½ inches long by 1⅝ wide, and nearly 1¼ thick, with an inch hole one inch deep close to one end in the narrow side of the cage. A seven-sixteenths hole is bored through the solid end of the block, and near enough to the opposite side of the block from which the larger hole is, so that the small one intercepts the latter below its bottom about one-fourth the width of the smaller hole, thus forming a shoulder so that a stick of candy will stay in place, and not slip into the cage and kill the bees. With such a cage as this, all one has to do in introducing is to cut a hole in a comb the size of the cage, and slip it in so that the side with the screen on is even with the surface of the comb, so as to allow the bees to feed the queen, when they will own her.

In 24 hours remove the netting carefully, slide the frame in place, and the queen is introduced. The cage may be removed at some future time.

The cage could be made so that it could be used 1⅛ inches wide, when I should consider it perfect, as 1⅛ inches is almost too wide to go into most frames. I think that a small cross-pin would hold the candy, and this would dispense with the shoulder, and the cage could be used narrower.

SEASON OF 1888.

Report for the Past Season—Marketing Honey.

Written for the American Bee Journal

BY EVAN R. STYER.

On March 28, 1888, I examined 11 colonies that I had in winter quarters. It was a warm day, and having all things ready, I commenced with No. 1, and having transferred it to a new hive, I gave sealed honey, contracting the brood-chamber, and replacing the chaff cushions. Thus I continued until I had the 11 all nicely cleaned and repacked. Nine colonies were in good condition, 2 were rather weak, and during April they dwindled to almost nothing.

Sometime in April I moved them about three miles, to a farm which I now occupy. The move was a successful one, having lost scarcely any bees by the operation.

The spring was backward and cold, and the bees did not build up very fast. I had six swarms in June and July, and one in September. During June 6 colonies gave me 160 pounds of extra fine white clover honey, nicely capped, in sections completely filled. In July I took off 150 pounds more of the same quality.

For August I got nothing. In September I obtained about 100 pounds of

honey of fair quality, making in all about 400 pounds.

During the latter part of the season, while manipulating with the bees, I found them exceedingly cross; so much so that I was almost obliged to give up working with them. The theory of "holding the breath" was of no avail.

In October I lost 3 colonies by robbing. I commenced feeding them sugar syrup, giving to each colony about 18 pounds. Two colonies had natural stores enough. In November I placed them in the bee-house, just in the rear of the bee-yard, raising each hive up about 2 inches, and placing meadow hay around the three sides, leaving the front exposed to the south. So far they seem to be in good condition.

Selling the Honey.

I was determined then to sell the honey for a fair price, and to first-class customers. I represented the goods as being fine, and to be just what I said, or no pay. I called upon a Doctor in one of our large cities, and spoke to him about what I had. He was afraid to invest, but after some persuasion, he consented to take some on trial. He did so, and the result was that we was so well pleased with the flavor and quality, that he ordered quite an amount afterwards, besides selling some for me.

Some I sold to parties living in New York, along the Hudson river. The honey was just what I said it was, and they promised me their custom for next season.

This same gentleman, who is a wealthy merchant in New York city, told me that he had paid as high as $3 per pound for wild honey, which came from Norway. I received 25 cents per pound for all I sold, and have only a little left.

I find plenty of customers in my home market, and I prefer to retail it in this way than to wholesale it. I could dispose of much more, had I the honey to sell. I have a good location for bees, and I intend to increase my apiary to 50 or more colonies.

My neighbors have poor luck—no swarms, no honey, and many often lost all their bees during the winter. They take no bee-paper, and read no books on the subject, but go it blindly. To me it is an exceedingly interesting study. The AMERICAN BEE JOURNAL still grows better.

Morgantown, Pa., Jan. 1, 1889.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Jan. 16-19.—Eastern New York, at Albany, N. Y.
Thos. Pierce, Pres., Westbury, N. Y.

Jan. 30, 31.—N.E.O., N.Pa.& W. N.Y., at Franklin, Pa.
C. H. Coon, Sec., New Lyme, Ohio.

May 4.—Susquehanna County, at Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Feeding Bees in Winter, etc.—Rev. Stephen Roese, Maiden Rock, Wis., on Jan. 7, 1889, writes:

The weather continues very fair for January, with no frost and no snow, and the bees still out on the summer stands. They have a flight almost every few days. I was called upon to take the honey from 3 colonies of bees, for a friend four miles from here, and as I dreaded to kill the industrious insects, I shook them all off from the combs the best I could, and as they were weak colonies, I put them all in one box, and took them home. I placed them in a hive with empty frames, as I had no frames filled, and the weather being so mild, I have been feeding them about 8 or 10 pounds of honey the last three days. They are outside alone; but I do not think much of unsealed honey for bees to winter on. Would you advise placing the "Good" candy over the frames; or furnish them with sugar syrup? Bees in this locality are as yet doing well, and we hope for a good season this year.

[Candy over the frames will probably be best now, but you must not disturb the bees to put it there, except during a warm spell, and in the middle of the day.—ED.]

Mild Weather.—Henry Alley, Wenham, Mass., on Jan. 3, 1889, writes:

We have no more winter weather here now than we have had since Nov. 1. The bees are flying nearly every day.

Burying Bees to Winter.—John Broadhead, Chatsworth, Ills., on Jan. 1, 1889, says:

I have 30 colonies of bees buried in the ground. They are in good condition with plenty of honey. Fifteen colonies are pure Italians. I will try to report in the spring, telling how they winter, and describing my method of burying them.

Bee-Hives and Rheumatism.—T. C. Whiting, Athens, N. Y., on Dec. 26, 1888, writes:

My bees had a Christmas frolic, and were out in full force. The mercury was at 52° in the afternoon. I would like to know the name of the hive I use. The man I got it of has no name for it, only "bee-hive;" and I suppose anything with bees in it would be called a "bee-hive." The hive is 16½ inches long inside, 13 inches wide, and 12 inches deep, and is made of boards 12 inches wide. It has 8 movable frames. I asked a neighbor who keeps about 50 colonies, and I did not find out, although he uses a good many of them. I do not expect to keep bees a great while longer, but it suits me first rate, if I could only see. My eye-sight is too poor, and I am getting too old. I have had bees two years; started with one colony, and I now have 7, which were pretty lively yesterday. I keep bees to cure the rheumatism, and I am freer from it now than I have been for the last two years. I have got so that I do not mind a sting, unless I get too many in one place. They do not swell as they did last year. I have read that bee-stings are good for the rheumatism. I would not like to say that it has helped me, for I do not know for a fact. I have been subject to that complaint for 50 years. Sometimes I was pretty bad with it; you would have thought so if you had seen me when I was drawn into a heap about 2 feet long.

[The hive is evidently a mongrel, taking no regular size of frame. It is a great mistake to make hives not using a regular sized frame. It is undesirable for use, because it often requires frames, sections and supers of irregular sizes to be made especially for it; and is a *nuisance* when bees are bought or sold.—ED.]

Cipher Telegram.—E. Strong, of Kalamazoo, Mich., on Jan. 3, 1889, writes:

Report: Comb honey, 0. Extracted honey, 0. Temperature, 44°. Hopes for another year in the nineties. Fed, 0. Enough to winter on the summer stands.

Honey from Fire-Weed, etc.—H. E. Harrison, Covert, Mich., on Jan. 8, 1889, says:

I wintered 3 colonies last winter, increased them to 5 during the past season, and harvested 450 pounds of fire-weed honey after Sept. 1. The honey was nice and white, and sold as well as basswood or white clover honey, there being no difference except in the taste, which is strong. The drouth of 1887 nearly killed the white clover, and the basswood being scarce here, it did not afford much honey. I did not get any.

Good Honey Crop.—Mr. Adolph Wuerzer, Helvetia, W. Va., on Dec. 31, 1888, writes:

My location is not a bad one for bee-culture. We have hard maples, linden, poplar, black gum, round wood, the clovers and berries; and my honey crop in 1886 was an average of 38 pounds to the colony. In 1887 it was 39 pounds, and in 1888 it was 44 pounds. I read the AMERICAN BEE JOURNAL with much pleasure, and anxiously look for its arrival. I have 45 colonies of bees in good condition, in winter quarters.

Mild Winter—Japanese Buckwheat.—H. L. Rouse, Ionia, Iowa, on Jan. 5, 1889, writes:

If a warm, dry fall and a mild winter are favorable conditions for the successful wintering of bees, then surely bee-keepers in this locality ought to meet with but slight losses this winter. No snow fell until the night after Christmas, when it came down very plentifully, so that it was a foot deep on the level. The ground is not frozen very hard, and as it is well covered with a blanket of snow, what clover survived the drouth will be well protected. Our honey crop for 1889 all hinges upon the coming

spring. If we get plenty of spring rains, I think that the clover will be a fair crop. If not, the old story of 1887 and 1888 will be repeated. I sowed one peck of Japanese buckwheat last spring, from which I received nine bushels of seed. It was sown on about 35 square rods of ground. I had three-fourths of an acre sown with the common variety, from which I harvested only 12 bushels. All who see the Japanese variety, want some for seed. I intend to sow that exclusively another year. I think that it is *the* buckwheat.

Best Prospects in 15 Years.—Messrs. Bray & Seacord, Warthan, Fresno Co., Calif., on Jan. 1, 1889, write:

The prospects are good for a large yield of honey for the season of 1889. Vegetation of all kinds is making a rank growth—in an experience of 15 years, we have never seen such a good prospect as the present. There has been no frost of any consequence, simply a splendid open winter, with an abundance of warm rains for all agricultural purposes; in fact, it is more like late spring and summer weather. When it is not raining, one can do all out-door work minus a coat, or any superfluous clothing. Just imagine the middle of winter, with your April and May climate in California, and you will then understand the situation. We wish the AMERICAN BEE JOURNAL a happy and prosperous year, with a large flow of (milk and) honey.

Fairly Good Honey Crop.—F. M. Merritt, Andrew, Iowa, on Dec. 24, 1888, writes:

The honey crop of 1888 has been fairly good in this part of Iowa. I commenced the season with 8 colonies, and increased them to 21. Three of the 8 colonies were very weak, and required feeding until the latter part of May, when all the colonies built up rapidly on apple-bloom and dandelion, of which there are acres covered with this beautiful yellow-flowered plant. The white clover did fairly well, and I secured about 100 pounds of honey from it, in the extracted form. I got about 900 pounds from the fall flowers, such as golden-rod, wild aster and heart's-ease. I have secured 1,000 pounds of honey, about one-half of it extracted, and the other half in the comb. All the colonies are in winter quarters, and seem to be doing nicely.

Cellar for Wintering Bees.—J. H. Bingham, Lee, Mich., on Dec. 31, 1888, writes:

I had 35 colonies of Italians and hybrids last spring, which I increased to 45, by natural swarming, and took off 35 pounds of comb honey per colony, with the brood-frames still well filled. I have made a bee-cellar this fall. It is 12 feet wide, 20 feet long, and 7 feet high. It is built in a hill-side, with joist over the top, and plank, with 2 feet of sawdust on the plank, and a good roof over the top. I have 45 colonies in the cellar, and the temperature is at 43°. The hill is sandy. There is a ventilator 4 inches square in the top of the cellar, but the cellar is damp, but not enough for water to stand on the hives. Will the bees winter well in this cellar?

[Bees ought to winter well in a cellar made as described above, but they cannot always be depended on for safety. Losses have and will occur sometimes, no matter how wintered. Springing is the most dangerous, and causes more loss, usually, than any kind of winter management.—ED.]

Wintering in a Bee-House.—Samuel Snow, Fayetteville, N. Y., on Jan. 5, 1889, says:

The old year, 1888, has passed on to be remembered as one of the "has beens," and the new year, 1889, has quietly stepped into its place. While the record of 1888 has not been what some of us would wish, yet it is not a bad one, by any means. Let us remember it with gratitude, and with the Almighty's permission, start 1889 with renewed energy, under more favorable auspices, and do more and better work. I commenced the spring of 1888 with 65 colonies, increased them to some over 100, and took over 3,000 pounds of nice comb honey, and 100 pounds of extracted. My bees are in a bee-house (made so that they occupy it during the summer and winter); in which they are now tucked away in forest leaves. They had a nice flight yesterday, and improved the opportunity.

The Past Season's Results.—E. F. Meeker, Duncan, Ills., on Dec. 28, 1888, says:

I commenced the past season with 50 colonies of bees, and I have at present 109 colonies. I took a trifle over 2,000 pounds of honey.

Killed by Accident.—Mr. Fred J. Mudgett, of Meredith, N. H., writes thus concerning the death of his brother:

My dear brother, Raymond L. Mudgett, was shot and killed by the accidental discharge of his gun while hunting on Oct. 3. It is a terrible blow to me; he was my only brother, a promising young man, 18 years of age, and it seems hard to have our loved ones cut down in such a terrible way. How many there are in this broad land of ours that have been called upon to pass through just such sad scenes.

Fed the Bees for Winter.—C. W. Bradish, Houseville, N. Y., on Jan. 1, 1889, says:

The past was the poorest season for bees that I ever saw. I had 75 colonies on June 1, and 90 in the fall, and took about 400 pounds of comb honey. I had to feed two barrels of granulated sugar made into syrup, and 500 pounds of extracted honey, to winter them. Those who have not fed their bees, will lose all this winter.

My Experience with Bees.—W. A. Shafnit, Brighton, Iowa, on Jan. 4, 1889, writes:

I started with 1 colony of bees, which I found when mowing weeds along a hedge fence on July 4, 1883, and put into a box. I then had bees, but I did not have any honey the first two years. I concluded that I did not want them unless we could have honey, so I adopted the 8 frame Langstroth hive, and commenced to read and experiment, and killed some bees, by my ignorance, as some say. The third year I obtained 80 pounds per colony, of comb honey. The fourth year the yield was only about 25 pounds per colony, being a very dry year, and the bees did nothing. They went into winter quarters very light, and I had a heavy loss in the spring, as the season was backward and cold. The fifth year the bees did tolerably well, averaging about 50 pounds per colony, spring count. My greatest trouble is, that they swarm too much. I have been working the past season by the Heddon method of preventing after-swarms, but I did not succeed very well, for swarm they would, and swarm they did. So I concluded that if they would swarm, I would put two and three after-swarms together, which seemed to do very well, and I had strong colonies soon ready for the sections, which gathered the most of my honey. My black bees did not amount to much, but the Italians and hybrids are the bees for this part of the country. I introduced one queen in July, which I am well pleased with. I shall try some more, if everything is favorable. I put 33 colonies into the cellar, and left 2 on the summer stands to experiment with. The winter has been very nice so far, with the temperature at 62° in the shade. The bees on the summer stands had a good flight on Dec. 23. Since Jan. 1, the temperature has been from 38° to 40° above zero.

Poor Season Last Year.—Jacob Copeland, Allendale, Ills., on Jan. 7, 1889, says:

The last year was a poor one for bees and honey in "this neck of woods." From 55 colonies I obtained about 550 pounds of honey, or an average of 10 pounds per colony of nice comb honey in one-pound sections. One young colony and one old one gave me 50 pounds each, and the yield was from that all the way down to less than nothing. I suppressed the increase—which, by the way, was not hard to do—so that I have only about 60 colonies now.

Dark Honey, etc.—I. S. Herron, Marshfield, O., on Dec. 31, 1888, says:

I have my 47 colonies of bees stowed in the cellar, and they appear to be doing well. Last year there was not much of a honey season here. I started in the spring with 27 colonies, increased them to 52, and have lost 5 colonies through queenlessness; being late swarms they did not store sufficient honey to last them even until winter, and I neglected them. I took about 400 pounds of comb honey, mostly in 2-pound sections. All the honey gathered in this county was dark in color, being mostly gathered from poplar, raspberry and blackberry. There was no clover honey.

Very Mild Winter, etc.—Jas. A. Matney, St. Joseph, Mo., on Jan. 7, 1889, writes:

I like to read the experience of bee-keepers from all parts of the country, as printed in the AMERICAN BEE JOURNAL. Bees in this section of Missouri were not profitable the past year. I had 13 colonies last spring, and have only the same number now, and I had very little honey from them the past season. If my bees winter all right, I shall be able to start next spring where I was last spring. We have had a very mild winter so far. Bees were flying last week.

Good Results the Past Season.—S. E. Daggett, Conrad Grove, Iowa, on Dec. 25, 1888, wrote:

On Dec. 1, 1887, I put 6 colonies of Italian bees into the cellar, and took them out the first of last April in good condition. I increased them to 18 colonies, and obtained 500 pounds of very nice comb honey, which I am disposing of at 20 cents per pound. These results were obtained by close attention. My bees are in the cellar, with plenty of stores for winter. I am a beginner, but I have learned to love the bees, and we get along nicely together; thanks to the AMERICAN BEE JOURNAL for its useful instruction.

Moldy Combs, etc.—R. P. Blades, Carmi, Ills., on Jan. 3, 1889, writes:

I had one colony that gave me 156 pounds of comb honey the past season. I had 17 colonies in all, and put them into the cellar on Nov. 25. I put them all on the summer stands to-day to give them a flight, and found, on examination, that the combs were nearly all moldy. The bees appear to be in good condition. I would like to know what to do, or whether moldy combs will hurt the bees. The brood-frames are full of honey. I use the Simplicity hive with 10 frames. I learned in uniting bees after sundown, that they will not sting. It appears that at that time they have no guard out to watch for robbers, and so they let them come in peaceably. However, I give them a puff or two of smoke in the hive. My bees did well the past season.

[The molding will do no harm. Let the bees take care of that.—ED.]

Fall Crop of Honey.—Wm. Hill, of Prophetstown, Ills., on Dec. 31, 1888, says:

On Dec. 12, 1887, I put 41 colonies into the cellar, and left 4 on the summer stands. I took them out of the cellar the last of March, 1888, and lost 4 colonies by spring dwindling. My bees had one good day's work on willow; I had put a good colony on scales, and it put in 8¼ pounds of willow honey. It was cold and rainy through fruit-bloom, and the bees did nothing. White clover and basswood bloomed, and the bees got just enough to keep up breeding. The last of August they commenced to work on heart's-ease and other fall flowers. I secured about 1,700 pounds of the nicest fall honey that I ever had, one-half being extracted, and the rest comb. I put in the cellar on Nov. 27, 45 colonies in good condition, and left 8 on the summer stands. They appear to be doing well.

Beautiful Weather—Quiet Bees—Joshua Bull, Seymour, Wis., on Dec. 31, 1888, writes:

We have had most beautiful weather here all the past fall. "Indian summer" continued clear up to Christmas Day. We did not have any bad storms until Dec. 26, and then Old Winter came howling in, and brought us about 8 or 10 inches of snow. On the morning of Dec. 28, the mercury, for the first time this season, went down to 8° below zero; but it was thawing again on Dec. 30, and it is very mild to-day. My bees are resting very quietly, both those out-of-doors and those in the cellar.

Producing Extracted Honey, etc.—C. W. Dow, Lynn, Mass., on Jan. 8, 1889, writes:

I was very much pleased with the arrangement of the Index for the last volume of the AMERICAN BEE JOURNAL. I have got it bound already, and it makes a very valuable book.

I read somewhere in the AMERICAN BEE JOURNAL, of a correspondent who practiced giving his bees half-depth wide frames to be filled with comb, and then used for extracting. The idea seemed to me to be a good one, and just before the white clover bloomed, I arranged cases for four hives, with seven shallow frames in each, and filled with comb. The result more than pleased me, for I secured the largest and best lot of white clover honey that I have had in the 20 years that I have kept bees. The bees filled the frames solidly full of comb 2 inches thick. I extracted it before the honey was sealed over, and I found that it was heavier, and better ripened than any I ever had before. I also saved the trouble of uncapping. I like the plan so well that I shall try it on all of my hives next season. Why has it always been the custom to produce extracted honey in the same depth of comb that brood is reared in, when the bees always store their surplus honey in combs 2 inches thick, when they have their own way?

Exhibiting Bees, etc.—Mr. Noah Clemmons, Rock Bluffs, Nebr., on Jan. 2, 1889, says:

I have 12 colonies of bees that I got from the woods in November, without any honey or comb, and they are doing well in the basement of my house. I feed them syrup and ground oats, and they eat like chickens. I intend to take my bees and travel from fair to fair next fall.

"What of the Night?"—Eugene Secor, Forest City, Iowa, on Jan. 9, 1889, writes thus:

On Oct. 19 I began taking my bees into the cellar, and finished Nov. 9. If I had foreseen the winter, very likely I should have left them on the summer stands for a month; for the weather has been very mild up to this time. Bees could have flown almost every day till Christmas, and many days since. It has been impossible to keep the temperature of my cellar down to the approved figure. It has ranged from 48° to 52° all the time. Notwithstanding this fact the bees have been remarkably quiet. After a confinement of nearly three months, there are but few dead bees on the cellar floor. I have not examined them closely, but they appear to be all right.

Bees did Well.—A. C. Loomis, of Grand Rapids, Wis., on Jan. 7, 1889, says:

My bees did pretty well last year. I commenced in the spring with 8 colonies, increased them to 14, and obtained 537 pounds of comb honey. They swarmed a great deal, and sometimes I put as many as 3 swarms into one hive. Two large swarms went to the woods.

Good Prospects for Next Season—Joseph L. Flint, Marion, Iowa, on Jan. 7, 1889, writes:

I commenced bee-keeping on June 8, 1888, by purchasing one colony of Italian bees. On June 22 I bought one colony of black bees, and they supplied themselves with an abundance of winter stores, but gave me no increase or surplus. The Italians swarmed on July 4, 14 and 19, and stored 8 pounds of surplus honey. I hive the first swarm on 10 frames full of comb foundation, and it filled the hive, and gave me 22½ pounds of surplus honey in sections. Swarm No. 2 had 9 frames with 2 inch starters, and it filled the hive, but produced no surplus. Swarm No. 3 went to the woods. The honey was mostly basswood, buckwheat and white clover. Bees did not work on red clover or golden-rod. The prospect for an excellent crop of white clover is good for next year.

The Time for Reading has come, with the long winter evenings. We have a large stock of bee-books, and would like to fill orders for them. To read and post up is the way to succeed in any pursuit—in none is it more important than in bee-keeping.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Convention Notices.

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at the Court House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.
H. M. SEELEY, *Sec.*

☞ The Eastern New York Bee-Keepers' Association will hold its next meeting in conjunction with the Farmers' Institute in the Agricultural Hall, at Albany, N. Y., on Jan. 16 to 19, 1889.
THOS. PIERCE, *Pres.*

☞ The Northeastern Ohio, Northern Pennsylvania and Western New York Bee-Keepers' Association will hold its tenth annual convention in the City Hall at Franklin, Pa., on Wednesday and Thursday, Jan. 30 and 31, 1889. Good hotel accommodations have been secured at one dollar per day.
C. H. COON, *Sec.*

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

Money in Potatoes, by Mr. Joseph Greiner. Price, 40 cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

We Supply Chapman Honey-Plant **SEED** at the following prices: One ounce, 40 cents; 4 ounces, $1; ½ pound, $1.75; 1 pound, $3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

Honey and Beeswax Market.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 15@16c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c.; fair 1-lbs., 12@14c. Extracted, white, in kegs and ½-barrels, 8½@9c.; amber in same, 7½@8c.; in pails and tin, white, 9½@10c.; in barrels and ½-barrels, dark, 5½@6c. Market dull. The very best sells slowly, and inferior qualities are neglected very much. Damaged, broken and leaky comb honey not wanted.
BEESWAX.—22@23c.
Jan. 10. A. V. BISHOP, 142 W. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@16c. Demand slow, with a smaller supply than ever at this season for the past 10 years.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Jan. 9. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—White 1-lbs., 16@17c.; fall, 14@15c.; California 1-lbs. 16@17c.; white 2-lbs., 12@15c. Extracted, white California, 7@8c.
BEESWAX.—20c.
Jan. 7. CLEMONS, CLOON & CO., cor 4th & Walnut.

KANSAS CITY.

HONEY.—Choice 1-pounds, 15@16c.; dark 1-lbs. 12c.; 2-lbs., 14c.; dark, 11c. White extracted in 60-lb. cans, 8c.; amber, 7c.; in barrels and kegs, 5@8c. Demand good, prices steady, and stock large.
BEESWAX.—None in market.
Jan. 4. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—White, in 1-lb. sections, 15@16c. Extracted, 9@10c.
BEESWAX.—20c.
Jan. 1. J. M. CLARK & CO., 1409 Fifteenth St.

NEW YORK.

HONEY.—We quote: Fancy white 1-lbs., 14@15c.; 2-lbs, 12c Fair white 1-lbs., 14@15c.; 2-lbs., 10 to 11c. Buckwheat 1-lbs, 10@11c.; 2-lbs., 9@10c. Extracted, white, 7½@8c.; dark buckwheat, 6@6½c. which is in good demand. Market dull, except for extracted buckwheat; for all other kinds it is quiet, owing to unseasonable weather, we believe.
HILDRETH BROS. & SEGELKEN,
Jan. 10. 28 & 30 W. Broadway, near Duane St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½ cents; amber, 6c. Comb, white 1-lbs., 13@14c.; 2-lbs., 13c.; amber, 10@11c. Demand is of a jobbing nature, and arrivals are small.
BEESWAX.—19@20c.
Jan. 8. SCHACHT & LEMCKE, 122-124 Davis St.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 18@19c.; 2-lbs., 16@17c. Good dark 1-lbs., 15@16c.; 2-lbs., 13@14c. Buckwheat 1-lbs., 14@15c.; 2-lbs., 12@12½c.—Extracted, 7@9c., depending upon quality and style of package. Receipts increasing, but demand still limited. Stock is not selling as freely this season as a year ago.
BEESWAX.—22c.
Nov. 13. B. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—It is selling fairly well at 18c. for best 1-lbs.; very fancy lots have sold at 20c. Dark and yellow comb sells slowly at 13@16c. Extracted, 7@9c., according to quality and style of package. The stock of best comb honey is light.
BEESWAX,—22c. R. A. BURNETT,
Nov. 22. 161 South Water St.

SAN FRANCISCO.

HONEY.—White 1-lb. sections, 12@12½c.; 2-lbs., 12@14c.; amber, 8@10c. Extracted, white, 6½@6¾c.; light amber, 6c.; amber and candied, 5¼@5½c. For comb honey the demand is light; for extracted it is good, and market firm.
BEESWAX.—Dull at 18@22c.
Nov. 15. O. B. SMITH & CO., 423 Front St.

DETROIT.

HONEY.—Best white 1-lbs., 16@18c. Supply is not large, but equal to the demand.
BEESWAX.—22@23c.
Dec. 12. M. H. HUNT, Bell Branch, Mich.

BOSTON

HONEY.—We quote: Best white clover 1-pounds, 17@18c.; best 2-lbs., 16@17c. Extracted, 8@9c. The sales are good, and indications are that all the honey in the country will be sold by Feb. 1.
Dec. 27. BLAKE & RIPLEY, 57 Chatham Street.

ST. LOUIS.

HONEY.—We quote: Extracted in barrels, 5@6c. according to quality; in cans, 7@8c. Comb, 12½@15c. Prices firmer on account of scarcity, though the demand is not great.
BEESWAX.—21c. for prime.
Oct. 17. D. G. TUTT & CO., Commercial St.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 50	1 40
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Cook's Manual (**old edition**)	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2 00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Photographs of Bee-Keepers.—The "medley" gotten up by E. O. Tuttle, containing the faces of 120 representative apiarists, and a printed sketch of each one, will be sent with the BEE JOURNAL for one year for $1.75; or we will present it *free*, by mail, to any one, for a club of three subscribers and $3.00.

Simmins' Non-Swarming System, and the AMERICAN BEE JOURNAL for one year, for $1.25. The subscription to the BEE JOURNAL may begin anew at any time.

Advertisements.

BEESWAX WANTED.

Beeswax.—We will pay **20 cents** per pound, in Cash, for Yellow Beeswax, delivered here; or **22 cts.** per lb. in exchange for Bee-Keepers' Supplies.

☞ To avoid mistakes, the name of the shipper should always be on each package.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILLS.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Jan. 26, 1889. No. 4.

EDITORIAL BUZZINGS.

Rise, for the day is passing,
And you lie dreaming on ;
The others have buckled their armor,
And forth to the fight are gone.
A place in the ranks awaits you ;
Each man has some part to play ;
The past and the future are nothing
In face of the stern to-day.

Our Review of the new book, "Langstroth Revised," is crowded out of this issue. It will appear as soon as we can find room for it.

The Bee Hive for January comes out with a colored heading, minus its cover, and the price lowered to 25 cents a year. It contains 12 pages, is published monthly, and is a spicy little periodical. It will be clubbed with the AMERICAN BEE JOURNAL for $1.20 per annum.

Dr. A. B. Mason is at work for the good of apiculture. He has already delivered two addresses this winter, and is now booked for another at a Farmers' Institute, 60 miles south of Toledo, O. He is also on the programme of the Tri-County Institute for another address at Adrian, Mich. The Doctor is a pleasant speaker, and can interest almost any audience.

Professional Bee-Men.—Judge W. H. Andrews, McKinney, Texas, on Jan. 10, 1889, desires to correct his letter as it appeared on page 12, so as to read thus: "Ninety-five per cent. of all the bees in North America, kept by professionals and their neighbors, are just mongrels." Several words were omitted by the writer, inadvertently.

Not a Late Spring.—According to the following from A. W. Greeley, Chief Signal Officer, the Weather Department apparently does not believe that the present mild weather indicates a late winter and cold spring. He says:

The significance of the unusual weather conditions for the past seven months can be explained only with reference to the abnormal distribution of atmospheric pressure over the northern hemispheres. Under the doctrine of averages we could reasonably look for an open, mild winter, since the late spring and summer was cooler than usual, and to counterbalance the deficiency of temperature in the spring and summer there should be an excess in the winter just now occurring. This, however, cannot be regarded as responsible for future prophecies, since the scientific use of average can only refer to very long periods, and cannot safely be referred to in special short periods, such as six months or a year, in case of temperature and rainfall. My personal opinion is that no one has reasonable grounds for predicting a late spring, on the simple basis of the present winter being so far mild and open.

Well Satisfied.—S. J. Church & Son, Cedar Rapids, Iowa, when sending the dues for the National Bee-Keepers' Union, make the following remarks:

My vote is for the same officers for the National Bee-Keepers' Union who have served so well since the Union has existed. I am perfectly satisfied with the management and the effective work of the Union. I think the General Manager should be paid a liberal salary for services rendered, for the labor and care are too much for the mere honor of the office.

That is natural and right, but the Union is not in a condition to pay a salary, until the expenses of the suits on hand are provided for. The present Manager never expects a salary, but his successor may do so, and it would be right and proper to pay for such services—provided the money necessary to pay it, is forthcoming.

But, alas, with a membership of only hundreds where it should be thousands, there is no chance to do anything like the work which the Union is capable of doing for the pursuit of apiculture. It ought to have 25,000 members, at least.

Did You Ever Think of the magnitude of our Query Department? Up to the end of last year we had published 600 Queries, beginning the year 1880 with No. 601. Ten thousand replies (in round numbers) have been given to the six hundred questions therein propounded. In no other way could the opinions of so many apiarists have been obtained on the topics presented for solution. This Department presents enjoyable reading matter, not only for those who ask the questions, but also for those who reply, as well as the general reader.

Dr. Tinker, of New Philadelphia, O., wrote us on Jan. 18, 1889, as follows: "The weather so far has been remarkably pleasant and mild. The bees, both in the cellar and out-of-doors, are wintering finely."

Mild Winter Weather seems to have prevailed over a large part of the world. The metropolitan daily papers report that the Londoners have bitterly complained of their Christmas—saying that they "gathered to their dinner in a thunderstorm, and walked home through mud and slush."

In many of the bays on the coast of Norway, the water has been found to be frozen at the bottom long before it froze at the top—the weather being so mild.

We are also informed that apple men in the lake counties and other sections of New York State are being subjected to no little worry through the mild weather, which has caused fruit to rot. About half a million barrels of apples, according to persons who claim to know, are stored in the Empire State, and half of these, it is feared, will go to loss.

So it seems that bee-keepers are not the only ones who have cause to complain because of the unseasonableness of the weather. They have suffered two or three years of failure of the honey crop because of bad spring weather. Now it may be their turn to rejoice while others are mourning. Nature gets *even* with us all in a lifetime.

C. O. Perrine, who boasted at the bee-convention at New Orleans, that he was "the boss adulterator of the world," now lives at Riverside, Calif., where he owns an orange-grove. Mr. A. I. Root called there while on his trip to California, and found him as usual in great prosperity.

Much More Food than usual has been consumed by the bees during the mild weather for the past two months. Care must be taken to see that they are well supplied with food, or starvation may be the result.

Mr. A. S. Goodrich, Worthington, O., has lost his wife, and when her lifeless body was lying in its casket, it was expected that he would also pass to the other shore. After five weeks of languishing he is recovering. The BEE JOURNAL extends sympathy and condolence to a bereaved and sick brother.

Abuse is Not Argument.—It does not require much intellect in order to be abusive. No sensible person will throw much mud when rocks are at hand. When an individual stoops to use epithets in a discussion, that is *prima facie* evidence that nothing better is available. "If you have no case, abuse the opposing attorney," is the motto of pettifoggers, the world over.

"What a Beautiful Winter (says Mr. John Haskins, of Empire Prairie, Mo.) we are having. It is warm most of the time, like spring. On Jan. 3, the bees were cleaning the dead bees out of the hives. I hope they will winter finely."

GLEANS OF NEWS.

Honey as a Cure for Diphtheria—As this disease is now very prevalent, and all sorts of cures, including the mopping and caustic process, are offered by well-meaning persons, it may be appropriate to state an instance where honey has been reported to have saved a man's life, when given up by his physician, and not being able to swallow even water for three days. The case is thus stated by a correspondent of the Brooklyn *Eagle:*

Some time ago diphtheria became epidemic in Warrenton, N. C., when I was paying a visit. Of course it was my luck to fall an early victim to that dread disease. I was stopping at Dr. Brownlow's Hotel, and as soon as taken sick I sent for Dr. Howard, who afterward gained a celebrity in Baltimore. He attended to me in the usual way, but I continued to grow worse, until at last he advised me to send for my friends, saying it was unnecessary for him to call again.

It was the custom of Mrs. Brownlow to come to my room every day after the Doctor took his departure and ask what he said. This particular morning when Mrs. Brownlow was told what Dr. Howard had said, she seemed surprised, and remarked:

"You are as good as two dead men yet, and if you will do what a woman advises, I have no doubt but what you will pull through."

Drowning men are apt to catch at straws, and in my serious extremity, I accepted the lady's offer with thanks. She left my room, and in about half an hour returned, holding a quart pitcher in her hands. Mrs. Brownlow approached my bed saying:

"Take a swallow."

I did as requested, and, great heavens, what a feeling I experienced. It seemed to me as if there were four hundred knives in my throat, and every one of them did its share of cutting. My case was not only a bad but a very dangerous one, and while the draught was doing its work, I turned black in the face from choking. At last the matter came up. I drew a long breath and felt relieved.

"You feel better?" said Mrs. Brownlow.

I confessed that I did, and was ugly enough to say that Dr. Howard could not attend to a yellow dog of mine. In course of time I recovered, and when able to get out, called on the Doctor to pay my bill. If my specter had stalked into that office, or if anything else horrible had happened, Dr. Howard could not have been more surprised than he was at seeing me alive, though very weak. He asked what saved me, and I answered, Mrs. Brownlow, who, in my opinion, was a better physician than he.

Mrs. Brownlow's remedy was simple, and one that is in nearly every house. Make a quart of red pepper tea, and after straining, add a tablespoonful of common salt. Then *sweeten with honey* to suit the palate, and gargle as often as possible, always keeping the tea before the fire, so as to have it lukewarm. The pepper and salt are the knives that do the cutting, and the *honey heals the wounds.* In extreme cases one dose of oil will help much at first.

Two Mistakes of the typo occur in Dr. Tinker's essay. On page 26, second column and second paragraph, the word "not" should have been inserted between the words "spaced" and "more." On page 27, and next to the last paragraph, the words "section supers" should have been "extracting supers."

"Can Bees Hear?"—Why have they voice if not for communication? Why does the queen pipe in a peculiar tone as she leaves the hive at swarming time, unless to notify the bees of her departure and locality?

Once wishing to get a bee for microscopic examination, a vial was procured, and a visit made to the cellar where the bees were being wintered. At the appearance of the light, several sleepy-looking individuals came crawling out of the hive; the vial was placed over one of them; no sooner did he find himself a prisoner than he sent forth a shrill cry of distress. Instantly dozens of fellows not at all sleepy rushed out, causing the intruder to make a hasty and undignified retreat.

That bees are indifferent to some noises, and apparently sensitive to others, is evident. It is reasonable to suppose that they hear, but that their hearing is limited to tones in certain keys. The human ear is limited in its capacity; we do not know how much of the finer music of nature is lost to us, as the coarser sounds are to bees. Probably the seeming effectiveness of the tin-pan and dinner-bell in bringing to us a swarm of these domesticated creatures, consists in our presence and evident interest in their movements.—*New York Tribune.*

Fumigating Combs.—The method which Dr. C. C. Miller described in the AMERICAN BEE JOURNAL a few months ago, is as follows:

The powdered sulphur was put in an iron kettle holding about a gallon. A common kettle holding three or four gallons was partly filled with ashes, and in this the smaller kettle containing the sulphur was placed, and over all a tin cover that did not fit closely. I suppose this cover allowed plenty of air to keep up combustion, but made it burn slower than if entirely uncovered. Previous to covering, a lighted match was laid on the sulphur, and that was all the attention it received except the watching, and no doubt it would have burned just the same if I had been a mile away.

The above will answer several questions which have lately come to hand.

Mrs. J. Hilton tells, in *Gleanings*, of her trip to California, and of the Russell Brothers' 7 tons of honey. Orange is three miles from Santa Ana, and why not call on E. Gallup and others while she was so near? Our season here was not considered first-class, yet I will report some of the yields in this vicinity. Mr. Fox had 15 tons; Mr. Miller, 15 tons; Mr. Joplin, 12 tons; Mr. Odlin, 18 tons; and the Hot Springs Apiary, 20 tons. It sold immediately at $100 per ton, or 5 cents per pound wholesale. It is now worth 6½ to 7 cents wholesale. I believe these bee-keepers above named had from 200 to 270 colonies to the apiary. How does that compare with your Eastern apiaries? Of course, we do not use any harness, or have any trouble about our bee-cellars, etc.—E. GALLUP.

The Honey Instinct.—Mrs. L. Harrison makes these observations in last week's *Prairie Farmer* on the above subject. She asks:

How do bees know when there is honey in the flowers? Is it by instinct, or are they first-rate smellers? Do gay colors attract them?

During any warm day, if I melt wax, and have the door or window open, the room will soon be alive with bees, and they will even try to get down the chimney. Dear me! let the wax run over and burn, and there will be a bee-convention in short call; or melt honey, and drop some on the stove. Is this instinct, or do they smell?

I have a plum-tree out there in the garden that never fails to produce a magnificent crop of blossoms, and is fragrant. Sometimes I am tempted to put honey on the blossoms to induce the bees to roam over them, but they know the flowers are no good, and will not produce plums, and there is no work for them to do. They cannot afford to spend their time enjoying the sweet fragrance, and hovering over the delicate white bloom, for pleasure only; they want profit.

If gay colors attract bees, then they ought to hold high carnival over a red clover field, for they could find both bright colors and fragrance. They are not like Oscar Wilde, for they pass great Russian sun-flowers that are over a foot in diameter, and hover over a flower so tiny as to be almost imperceptible. The great bright peonies of our grandmothers' day, and bleeding-hearts of our own time, are passed by for the modest white clover.

Who of our readers do not dislike to take the time in the spring and summer, when every moment is so valuable, to put sections together, paint and repair hives, etc.? All this is work that certainly should be done now, during the cold and stormy weather. Think, too, what a pleasure it will be to feel that all is in readiness for swarms, let them come as early as they will. A golden motto for any bee-keeper is, have everything ready early, and get all in readiness when it can be done with the least outlay of valuable time.—*Indiana Farmer.*

Frank Leslie's Sunday Magazine for February contains several exceedingly interesting and finely illustrated articles which attract attention. In these days of Shakespeare controversy, Mr. Archer's "What is Known About Shakespeare," with its many faithful pictures, will prove especially valuable. There are the usual installments of stories, and several beautiful poems, together with a number of copies of famous paintings, which are always to be found in this magazine.

A Father can give his young son no better present than a year's reading of the *Scientific American.* Its contents will lead the young mind in the path of thought, and if he treads there a while, he will forget frivolities, and be of some account, and if he has an inventive or mechanical turn of mind, this paper will afford him more entertainment, as well as useful information, than he can obtain elsewhere. Price, $3.00 a year, weekly.

The Bloated Bumble-Bee.

Raise the pickens for the chickens,
Raise the baby on your knee,
But never raise a rumpus
With a bloated bumble-bee.

Don't you slight him, don't you fight him,
Even on your own domain;
If you do it you will rue it
When you wrestle with the pain.

Don't you boss him, don't you cross him
When the flowers are in bloom;
If you meet him try to greet him
With respect and lots of room.

QUERIES & REPLIES.

Burning Out Honey-Kegs when They are Made.

Written for the American Bee Journal

Query 607.—Is it necessary to burn out honey-kegs by the cooper, when making them?—Michigan.

No.—MRS. L. HARRISON.

I do not know.—EUGENE SECOR.

I think not.—G. M. DOOLITTLE.

I see no reason why they should be.—WILL M. BARNUM.

No, not to burn them out.—H. D. CUTTING.

I think that it is not necessary, only convenient.—R. L. TAYLOR.

Not being a cooper, I cannot answer.—JAMES HEDDON.

This question can be more correctly answered by the cooper.—J. P. H. BROWN.

I do not know enough about keg-making. That is a question for coopers to answer.—C. C. MILLER.

No. You apt to transmit a coloring to the honey.—J. M. HAMBAUGH.

I find it to be better, especially when soft wood is used.—P. L. VIALLON.

No; and it should not be done unless they are to be waxed or paraffined before being used.—A. B. MASON.

Honey-kegs should never be charred, as the motes of coal will spoil the appearance of the honey.—DADANT & SON.

No; only to make the staves more "pliable," so as to make the kegs perfectly tight.—C. H. DIBBERN.

The cooper heats the staves in order to bend them easily, and without breaking. That much burning is necessary.—M. MAHIN.

I give it up. Ask the cooper. If you mean because of flavoring honey, it would depend some upon the wood. Generally, no.—A. J. COOK.

I think not. It is well and advisable to either give them an inside coating of wax or paraffine.—J. E. POND.

I think not. Cooperage is burned or heated, so that the staves will bend readily to form the "bulge," and close the head of the cask. The hoops may be driven closer, and the joints tighter, if the material be cold.—J. M. SHUCK.

No; but coopers usually put fire in the vessel when forcing the joints, to make tight work of it. Many years ago I made tight cooperage with or without the use of heat. Kegs or barrels charred on the inside are preferred by the manufacturers and dealers in "red liquors," but they are not fit for honey. The charred wood does no harm to the honey, except that it crumbles and mixes with the honey, especially at the sides after granulation.—G. W. DEMAREE.

The cooper heats the staves to make them pliable, and thereby get closer joints. He also "chars" the wood when making them for some kinds of liquors, but such are not fit for honey, which needs neither the color nor the flavor it imparts.—THE EDITOR.

Do Bees Store Water in the Combs?

Written for the American Bee Journal

Query 608.—In the spring water is often found in the combs—do the bees store it there, or is it a condensation?—N.

It is a condensation.—J. M. HAMBAUGH.

It is a condensation.—A. B. MASON.

It is a condensation.—M. MAHIN.

I never saw it here in the South.—P. L. VIALLON.

It is a condensation.—DADANT & SON.

It is a condensation.—JAMES HEDDON.

It is probably a condensation.—C. C. MILLER.

I think that it is found there from both causes.—R. L. TAYLOR.

It is stored by the bees.—WILL M. BARNUM.

I think that it is stored there by the bees from condensation.—H. D. CUTTING.

It may result from condensation, but more frequently from leaky hives.—J. P. H. BROWN.

It may be there from either cause, or from both causes.—J. M. SHUCK.

I think that it condenses there. I have never seen water in the cells.—A. J. COOK.

I have never seen any water in the cells that the bees did not bring.—EUGENE SECOR.

It is the result of condensation, or leaky hive-covers. Bees do not store water, pure and simple, in their combs.—G. W. DEMAREE.

It may be done in both ways. That the bees store and use water is conceded by most bee-keepers.—G. M. DOOLITTLE.

I do not think that bees store water at all; but when found, I think that it is the result of condensation. I shall hold to the above opinion until absolute proofs to the contrary are given.—J. E. POND.

I do not know. The bees probably store some water while rearing brood, for a "rainy day."—C. H. DIBBERN.

Usually it is a condensation. Sometimes in the early spring, bees carry water on a pleasant day faster than it is used. This may be a wise provision of Nature, or a wise instinct given to the bee, to provide water in the hive for the brood, upon days too cold for storing for the bees to leave the hive.—MRS. L. HARRISON.

Water is necessary for bees when rearing brood, for dilnting the honey, or when liquefying it after being granulated. That found in the combs may have resulted from condensation, the bees may have placed it there for future use, or it may have resulted from leaky hives—at all events when there, it is convenient for use as desired. The bees often visit pump-troughs, and are eager for water, showing that it is a necessity for them, and when found in the combs it is suggestive of being *stored* there by the bees, even though the proof is wanting.—THE EDITOR.

Convention Notices.

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at the Court House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.
H. M. SEELEY, *Sec.*

☞ The Northeastern Michigan Bee-Keepers' Association will hold its annual convention on Feb. 6, 1889, at the Dayton Hotel in Flint, Mich., at 10 a.m.
W. Z. HUTCHINSON, *Sec.*

☞ The 11th annual session of the Texas State Bee-Keepers' Association will be held in the apiary of W. R. Graham, of Greenville, Hunt Co., Tex., on May 1 and 2, 1889. All bee-keepers are invited
G. A. WILSON, *Sec.*

☞ The Northeastern Ohio, Northern Pennsylvania and Western New York Bee-Keepers' Association will hold its tenth annual convention in the City Hall at Franklin, Pa., on Wednesday and Thursday, Jan. 30 and 31, 1889. Good hotel accommodations have been secured at one dollar per day.
C. H. COON, *Sec.*

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

CORRESPONDENCE.

SEASON OF 1888.

The Hard Maples as Honey-Producers—Colors and Bees.

Written for the American Bee Journal

BY G. W. DEMAREE.

It has become a maxim that, it does no good to "cry over spilled milk." Methinks if bee-men have any enemies, as many think they have, they have had their revenge—"sweet revenge"—on account of failure of the bee-business the past year.

On account of the light rainfall during the two preceding years, I was prepared for a light honey crop last spring, and I was not deceived in my calculations. Only the very best Italian colonies gathered a surplus during the early honey harvest. I would not have taken more than enough honey for home consumption, if I had not felt "honor bound" to fill my "standing orders." As it was, I took the lightest crop of honey in all my previous experience.

After the short early flow was over, it seemed that nothing in the shape of bee-forage yielded nectar, and the light supply of stores faded away to an alarming rate. Then came on the great heated spell which lasted nearly four weeks, and my bees dwindled badly on account of the excessive heat, but by the use of shade-boards not a single comb melted down.

The "fall rains," as we bee-men call them, began about two weeks ahead of the usual time, and I felt sure that a fall harvest would be gathered by the bees. During the last week of August a "shower" of thin nectar flowed into the hives, and I visited the fields to find out the source from whence it came, and found the bees working for life and wealth on the big, coarse weed known among farmers as "horse-weed."

The blossoms of this weed are very imperfect to the unaided eye, resembling most of all the common rag-weed. I never before knew bees to get anything but a little pollen from this source. The flow lasted but a few days, and then stopped off short. The thin nectar made a big show, and started brood-rearing rapidly, and never did I see thin nectar disappear so rapidly.

The rainfall was regular and abundant through September and October, and the fall bloom exceeded anything I have seen in this locality for years; but nothing seemed to yield nectar. The weather was good, bad and indifferent, and the bees fussed over an ocean of blossoms, and tried to rob everything in sight, but all failed.

I could not give up the "smart-weed"—it had never failed before. I waited for it to get a little more aged, and waited on and on through October and into November, and hoped that the first frosts might squeeze some nectar out of it, but it was "no good." I sometimes was tempted to lay the blame on the poor bees, until I found that several colonies had actually starved in the midst of a sea of bloom.

A neighbor of mine being a mile away, moved off, and left his bees in my care, to sell them. They were mostly black bees, and I failed to find a buyer for them, and had to move them to my bee-yard. There were 17 colonies of them, and every colony of blacks starved, leaving me but 5 out of the 17 alive, and these were nearly full-blooded Italians; and yet we are told that black bees are superior comb-builders!

I spent considerable money and much valuable time several years ago to free my breeding field of all black blood, and I did not wholly succeed, but now the year 1888 has finished the job for me. There will not be a black drone within five miles of my apiary next spring, and I doubt if the stock will "save seed" in this part of Kentucky.

Hard or Sugar Maple.

Mrs. Chaddock seems to be in doubt as to whether or not this tree produces nectar. In fact she seems to decide that it does not. We must remember that very few honey-producing trees and plants keep up their reputation in all localities, in so great a country as this.

In Kentucky, sugar maple rarely ever fails to yield nectar. It is a profuse bloomer, but opens its flowers so early in the spring, that rains, and otherwise unfavorable weather is likely to be in the way of the bees.

I have often seen a shower of honey come in from this source, and have enjoyed the sight of my bees falling like leaden bullets at the entrances of the hives. The bloom is very short-lived, however, and the flow lasts but a few days, at best.

Flower Colors and Bees.

By the way, I read with much pleasure Mrs. Chaddock's articles. When she does come, she sails in among the cooing doves, and "makes the feathers fly." In fact, I begin to fear for my "reputation" as the "stinging hybrid," since Dr. Mason has "gone through" "Observer" in the *Canadian Bee Journal*, and Mrs. Chaddock has made the fur fly among the professors and scientists, on the discussion of the color of flowers in connection with honey-gathering. I am decidedly with Mrs. Chaddock, and dead against the professors and scientists.

Laying aside all romance, and all guesses, I have found by actual observation, that the richly-colored flowers, as a rule, produce very little nectar. Our best honey-yielding flowers are decidedly *modest* in color and general appearance. I have seen bees searching among grass and weeds for tiny "bits" of flowers that the ordinary observer would pass without notice.

In my opinion, and I have not arrived at it hastily, bees rely upon their instinct and industry to find nectar, more than on any organs of sight or smell that they may possess. I am quite certain that the color of the flowers has little to do with it.

Christiansburg, Ky.

BEGINNING.

A Lady's Experience in Keeping Bees.

Written for the American Bee Journal

BY MRS. B. J. LIVINGSTON.

Five years ago a swarm of bees was placed in our yard under a huge basswood tree. For five years I have groaned over them, and wished I knew what to do to help them furnish us with honey. But all I knew about bees was, that they could *sting*.

But last September I visited a friend's apiary—just a primitive affair, and thought that I caught a ray of light. I borrowed her volume of the AMERICAN BEE JOURNAL for 1887, and have found them more fascinating than a novel.

As soon as I returned home, I sent for an Italian queen, and made my first experiment with the colony, which seemed very weak and helpless. It was in an old hive of the Langstroth style. I smoked the bees down, with cobs in an old kettle, burned my dress, and found that my hands trembled so that I could hardly control them. However, I soon discovered how helpless the little things were in a smoke, and so I became very brave.

I found about four quarts of moth litter in the hive, which I cleaned thoroughly, the bees meanwhile being emptied on a sheet.

The new queen was the first one in the hive; then the stream of bees began to flow in, and I fell in love with them then and there. The renovated hive, with the old frames thoroughly overhauled, was standing on one end of the sheet, and myself on my knees watching intently for the old queen, as

the stream of bees flowed steadily on. I was an hour finding her—have her now in alcohol, as I intend to know the next queen I see!

Providence favored the ignorant, for the new queen was not molested, and in a little over a month, I examined the hive, and found the little, soft, bright-banded bees thick all over the centre combs.

The weather was very fine here during all of September and October, and I kept feeding them honey—not knowing that that was the way to start the queen to laying. I have besides my pet colony, two strong ones in boxes, and after reading a month, I sent for a colony of pure Italians. The dealer did not wedge the frames, and I found the bees badly crushed, as they came some 200 miles by rail.

The weather was so cool that I could not hunt out the queen, to see if she was safe, and I suppose that I cannot tell until spring. If she is all right, I anticipate a pleasant summer with my four fine colonies. They are in the cellar, and seem to be wintering well, as there are not a dozen dead bees to be found yet. I also anticipate great pleasure, as well as profit, from reading the AMERICAN BEE JOURNAL.

Centre Chain, Minn., Jan. 7, 1889.

FLIGHT OF BEES.

An Open Winter—Marketing the Honey Crop.

Written for the American Bee Journal

BY H. J. ROGERS.

The following item is clipped from the *Youth's Companion*, bearing the date of Jan. 3, 1889:

TRAVELLING BEES.—The distances traversed by bees in pursuit of honey are surprising to a person unfamiliar with the habits of these busy workers.

A bee-keeper one morning drenched the backs of his bees with flour, as they were leaving the hives. He did this by a preconcerted arrangement with a friend who had a fine clover field in bloom forty miles away.

The day following the experiment, he received a letter from this friend, stating, "There are plenty of your white-jacket bees here in my clover." It was truly a wonderful instinct that sent the bees so far from home in quest of honey.

We are glad to learn that this question has at last been settled. It has always been a lasting query with me, viz: How far will bees fly? In my younger days I hunted bees considerably, and, at the same time, kept a number of colonies at our home, and I am *certain* that we never caught one of our bees beyond the "two-mile limit."

Truly, this is a progressive age. What will astonish us next? We will soon have bees that will cross the Atlantic.

A Remarkable Winter.

In some respects this has been a very remarkable winter in this locality, the last thirty days being more like April than December. My bees have had several splendid flights—on Dec. 26, and Jan. 3 and 4, more especially. I now feel confident of my bees wintering well. The heavy and almost continuous rains have saturated the soil most completely, and clover will, no doubt, yield lots of nectar next season. I feel much encouraged, especially as the market will undoubtedly be ready for our crop as soon as it is stored, and at good prices.

I am wintering 76 colonies on the summer stands, and one in the cellar, a 3-frame nucleus, which came to me last September, from a neighbor's, one-fourth of a mile away.

I take great comfort in reading the AMERICAN BEE JOURNAL. It is *the best.* As long as I keep bees, and can raise a dollar, I shall continue to take it.

My crop of honey last season was very nearly 2,400 pounds, in one-pound sections. Nearly all is sold at prices ranging from 14 to 17½ cents per pound. I have shipped to Hildreth Bros. & Segelken, and T. G. Strohmeyer & Co., with satisfactory results.

Stannards Cor., N. Y., Jan. 7, 1889.

[The item from the *Youth's Companion* is too ridiculous for anything. The idea of bees going 40 miles to pasturage! That shows what foolishness is "written for the press" by the professional scribblers!—ED.]

READ AND THINK.

The Valuable Apicultural Literature of To-Day.

Written for the Alabama State Convention

BY J. M. JENKINS.

The science of apiculture has received the earnest consideration of philosophers, professors, statesmen and others, men of every station and calling in life, from the most ancient periods of history to the present day; and there have been thousands of volumes of books and periodicals published in the past relating to apiculture. But as the praetical, movable-frame hive is a modern invention (only about forty years old), its manipulation and successful use for honey-production, will be described only in the publications of the present age. For the same reason these books cover the whole ground more completely, their authors having, in addition to previous knowledge of the subject, this grand invention to aid them in their research and experiment. There are several excellent text-books of recent date and moderate price, before the public, and no one attempting to keep bees can afford to blunder along in the dark without one or more of them.

What would you think of a young man, who, no matter how lavishly endowed by nature with brains and reason, should start out without study or preparation, to make a physician of himself on praetice and experience alone? That is precisely what a great many bee-keepers (?) do! If he lives long enough, and the stock of patients, or bees, or of medicine, or money does not become exhausted, he may in time make a passable doctor or bee-keeper. But, my friends, what a long life he will need? No, we cannot afford to start at the bottom and set at naught what has required thousands of earnest, thinking men, and thousands of years to accomplish, whether in medicine, apiculture, or other problems of life.

But some one says, "I don't believe in book-farming." Very likely the same person scorns the idea of himself learning from books about bees. He will probably intimate that what he does not know about bees, "ain't worth knowing, for his pap and grandpap before him all kept bees," (but the worms got amongst 'em a few years ago, and killed 'em all out.) He will also inform you that our winters are not cold enough to kill the worms, and for that reason the South is not a good bee-country. He also relates wonderful stories of his ability to charm bees and handle them as so many flies, but fails usually to disclose his charming secret to your charmed senses.

It is not recommended that one follow the books in every minute detail, but to study the theory and the praetice, and experiments of others, and modify them to suit your own case; considering the season, your climate, the flora of your vicinity, your market, etc., thereby combining theory and practice.

I feel safe in saying that a man may learn more about bees in one year by careful study of the excellent books available, and the intelligent application and practice of his studies, than he would in twenty years without reading, relying upon his own experience and discoveries for information and success.

Life is too short to be wasted in solving mysteries that have already been solved, and in making discoveries that were given to the world through the printing press long ago. Therefore let us make a "short cut" to proficiency in bee-keeping by reading the

best bee-books we can get, and the bee-papers that are published, and at the same time study our bees, visit our neighbor bee-keepers, attend the bee-meetings, talk bees and think.

Wetumpka, Ala.

MANIPULATION

In the Apiary During the Past Season.

Written for the American Bee Journal

BY H. BRAMLET.

My report for 1888 is not very flattering. The first part was very poor, so poor that a number of colonies were in almost a starving condition right in the height of white clover bloom.

Bees built up rather slowly early in the season, but finally they became strong and commeneed swarming, a portion of which I hived on the old stands in contracted brood-chambers, and thereby succeeded in getting a few crates of comb honey. At the time of swarming the brood-nests were almost destitute of honey, but a nice start had been made in the boxes, and where the crates were removed from the old stand to the swarm, and none put under them, they were fairly finished; those that were raised, and an empty one put under them, were not so well finished, and but a very little honey was put into the new one, though the foundation was nicely drawn, leaving them in good shape for the fall flow.

The crates left on the hives of the colonies that had swarmed, were cleaned out and left "as dry as a chip," and the honey carried below, where it was badly needed.

The colonies from which the crates were taken, and hives removed to new stand after swarming, suffered severely—lots of brood was carried out.

On occasional evenings all along up to Aug. 10, the contented hum of the busy workers could be heard; but oftener there was the "growl of the opossum" (or the moaning of the drones for mercy).

Although the drones were being killed off all the season, brood-rearing was kept up fairly well until Aug. 15; from then until the last was the most trying time on bees that I ever saw.

September 1 found the colonies reasonably strong in field workers, but destitute of brood or honey. About this time honey began to come in freely, and the result was a nice surplus of combs, honey, and a blocked brood-nest.

The queens seemed slow to lay, or the eggs were destroyed, and after the loss of the old bees the colonies were mere nuclei.

I thought a great deal of uniting, but I could not get the full consent of my mind to do so. I had superseded all the queens that I wished to destroy, with swarm-cell queens.

At present (Jan. 7) I have 48 colonies (or nuclei) packed on the summer stands, with a great plenty of honey.

The fall flow of honey, to the north and west of here, was better and earlier than here—it was some better only 3 miles distant, and considerably so 15 and 20 miles away. On the south and east it was poorer, which I think is not usually the case.

Raleigh, Ills.

WINTERING BEES.

Successful Wintering of Bees in the Cellar and Out-Doors.

Written for the New York Convention

BY R. F. HOLTERMANN.

This subject is one as difficult as it is important—one which should receive careful attention and experimentation by bee-keepers.

As I understand the subject, it means the way to winter our bees so as to consume the least possible amount of stores, and with the least possible loss of vitality. It may not be out of place to briefly enumerate what may effect these desirable ends, and I shall largely leave it to your experience, as to how far they do effect, and how far these conditions are under our control.

1. Stores, quality, quantity, position in the hive, and if sealed or unsealed.

2. Temperature, its variations. Those variations within a given time, and how regulated.

3. Moisture and ventilation—their effects at different seasons.

4. The colony: its numerical strength, age of bees when going into winter quarters, their remaining vitality, and the strain of bees.

5. Pollen, or no pollen, in the hive.

6. The time of putting the bees into the cellars, or putting them in clamps.

7. The time to commence brood-rearing, and the time to take the bees out of winter quarters.

Proper Stores for Winter.

As to stores: In our climate there is perhaps nothing better as a food than syrup made from the best granulated sugar, and yet when we take into consideration the increased quantity of honey thrown upon the market, the unjust suspicion it gives rise to, that bee-keepers are "making honey;" the additional labor to the bee-keeper, the loss in weight between the food given and amount stored in the combs, and the certainty that through the excitement the bees lose in vitality—experience says to us, "Feed sugar syrup no more!"

I cannot say if buckwheat and other grades of honey that we know is inferior, are as good as the lighter grades for winter stores, or not. This I know, they often appear to be as good. This is a point which might be investigated to advantage. Stores should doubtless be sealed; yet in a cellar with a temperature tending to be high, this is probably not essential. The centre of the cluster should, I think, not have combs of honey, but the combs be free for the bees to cluster in, the full combs being towards its outside.

Temperature in Winter.

As to temperature, who will dare to tell us the best temperature at which to keep a cellar, if it should remain stationary all winter, or increase or decrease as the time for taking bees out approaches? Who will tell us if a rise or fall of the temperature within a few hours is injurious? Who will tell us this with certainty?

I know that bees appear to winter well with a temperature ftom 45° to 50°, and with very gradual changes; but is it the best? So many theories have been advanced, so many satisfactory results given under apparently opposite conditions, that we are loth to accept any of them as definite, and the subject must be carefully investigated with the conditions otherwise equal.

Moisture and Ventilation.

Of moisture and ventilation, I know nothing definitely, having seen bees appear to come out equally well with the cellar apparently perfectly dry, and with everything about it saturated with moisture; with sub-earth ventilation and without, with provision for ventilation and without. We must, however, remember that we may be very much deceived in this matter; at 70° there may, to the ordinary observer, be no indication of moisture, yet the atmosphere may be almost saturated so much that at 65° everything will become covered with moisture.

Again, in winter the great difference between the outside and inside temperature is very great at times, and the pressure of the cold air from without is very great upon the warmer atmosphere within, so much so that a greater or less current of atmosphere must be constantly passing in; and I often think that this explains why bees so often become very restless towards spring, when the outside and inside

temperature are more alike, and the ventilation of the cellar is lessened. The remedy, of course is, making provision to allow more fresh air into the cellar.

A Colony's Numerical Strength.

The bees themselves as to numerical strength, disposition and vitality, have doubtless much to do with the question. I believe that a colony properly prepared may winter well, even if it is not what we call an average colony. However, much depends upon the remaining vitality of the bees, if the colony has become queenless early, and they are old bees which have gone through perhaps months of anxiety on account of their queenless condition, and the owner sends off at the eleventh hour for a queen, and adds to the expense sufficient food for winter. I should say that he will probably be able to report the loss of this colony by spring, at least. I destroy such a colony, and until I have more light, I recommend others so to do; the risk is too great.

In a colony long queenless, combs almost filled with pollen are often found. These should be removed in any case. I abhor an abnormal condition of a colony during the latter part of the season, as being liable to unsuccessful wintering.

A colony which has had a vigorous queen, and has not many bees, but all young ones, has good chances for wintering. As to the age of the bees, we do not know. Probably a fully-developed, vigorous bee is sufficient; and here let us remember when comfortable, not working, and with conditions normal, the colony ages very slowly, and to count the strength of a bee by its age, is very misleading. The strain of bees doubtless will make a difference. There is no difficulty in controlling this on the female side, but practically we can, in the honey-bee, only aim at securing certain blood upon the male side.

Putting Bees in for Winter.

I cannot say anything about the pollen theory, only if it is correct, is it practical to remove all pollen from the hive? For me there is too much manipulating about it; and next, if we decide to do this, we must decide that we do not want the bees to start rearing brood until they can fly out and gather pollen, if in clamps; or if in the cellar, until they are taken out. I am by no means prepared to say this.

This brings us to the last heading, and the one upon which we have by no means the most light and definite information. Some now say, put bees into the cellar early in October, and the latest advocate says January. Theory would lead me to say, put them in before the frost can possibly penetrate the hive, and carry them in at a time when the outside temperature is, if anything, a little higher than the inside. Stimulative feeding for brood-rearing I have practiced, but I now condemn it; for spring and fall you may gain a few young bees, but you stimulate the old ones to death. Nature pretty well regulates this matter—when bees through work wear themselves out, they rear brood; when they cease working, and husband their own strength, they do not require to rear brood. As to the time we should put bees out, I do not know. I should say, when I think we have something like settled mild weather.

In conclusion, you will see there is very much which I venture only an opinion upon, and out of it all how many of us can positively say that we know this or that method is the best? And how it should speed us on to investigate, to be open to anything which might give us light, and to be ready to communicate to all others through the press what we are learning.

Brantford, Ont.

GRADING HONEY.

Importance of Grading Honey for the Market, etc.

Written for the American Bee Journal

BY MISS IDA L. SMITH.

The grading of honey for the market is a very important point in aiding to dispose of the product. To arrange it tastefully, so as to attract the eye, and to command the highest price, is the first thought or work.

In selecting over the honey it is very convenient to arrange it in three grades (and some one of the grades will suit somebody's pocket-book)—the first, second and third qualities, and each should be kept by itself.

I cannot give a description of each grade, but each apiarist will best be his own judge in the matter. None but the whitest and best sections should be used, as they aid in selling the honey, and all propolis should be removed before the honey is placed on the market.

In the spring of 1888 I removed from the cellar 13 colonies of bees; 1 was queenless, and I united it with a very weak colony, which, with two other weak ones, just built up nicely during the summer. That left me 9 colonies to work for comb honey. They were not in a very good condition, as the previous year was such a poor one.

From those 9 colonies I obtained 500 pounds of comb honey, and sold it at an average of 15 cents per pound.

Darlington, Wis.

ROBBER FLY.

Value of the Bound Volumes of the Bee Journal.

Written for the American Bee Journal

BY DANA TWINING.

I send an insect that was captured last August. It appears the last of July, and may be seen around on low land. It is not numerous in this vicinity. I once saw one on sweet clover, amid the bees, and it held one a prisoner by its strong embrace. The past season I saw one bearing away a bumble-bee. In Cook's "Manual of the Apiary," I find an engraving of a robber fly, which I suppose is the same as the one I send. Am I right?

My bees averaged 45 pounds of comb honey per colony, spring count. It is mostly fall honey, but of fine quality. I use the Armstrong hive, packed with chaff early in October, and I do not remove the packing until apple-bloom.

Cyclopedia of Bee-Literature.

I have now three volumes of the AMERICAN BEE JOURNAL bound with the "Emerson binder." To a young apiarist, with the complete index, they form an excellent cyclopedia of bee-literature.

The past season was my first experience with a laying worker. Turning to the index of Vol. XXIII, I found that topic discussed on five different pages, by as many different authors.

Then, that colony was without a queen; so I sent to a noted queen-breeder for one, and soon received her. It was my first experience with queen-introduction, so I must "read up." By referring to the same index, I found that the introduction of queens was discussed on nine different pages, and Vol. XXII has as many more.

Green Garden, Ills.

[You are right about the robber fly. The insect sent is the *Asilus Missouriensis*. It captures a bee and then consumes its fluids. When prevalent, it is very destructive.—ED.]

BEE-CELLAR.

Preparing the Bees for Cellar Wintering.

Written for the American Rural Home

BY G. M. DOOLITTLE.

To properly prepare the hives for wintering in the cellar, they should be carefully carried in on some morning when it is a little cooler outside than the temperature which is required for

the bees to fly, and never when the hives are frozen down to the bottom-boards, or to the ground, if this can possibly be helped. When the hives are thus frozen down, the jar and confusion which comes from prying them loose, results in great irritation to the bees, and causes them to consume so much honey that it often leads to unsuccessful wintering afterward.

After getting them to the cellar, the hives should be set on a bench a foot or more off the cellar bottom, and the hives raised by some means at least two inches off the bottom-board or bench. Failing to do this, the hives will not be properly ventilated, and the result will be that the bees may get uneasy from lack of ventilation, which will cause them to consume more stores than is necessary to their existence, thereby needlessly using up the honey, and often leading to disease and death.

If it is not convenient to thus place them, the hives may be turned bottom side up on the bench, and a light, thin fabric of some cotton goods thrown over the hive; still the first is much to be preferred, inasmuch as that in the latter case all the debris from the bees will fall down into the top of the hive, which is now at the bottom, and remain there for the bees to clean out in the spring, if it does not become damp and mold, as it is liable to do, thus souring that part of the honey which it comes in contact with.

I also believe that the cellar should be dark, or that part of it in which the bees are wintered. Some claim that bees will winter as well in a light cellar as a dark one, which may possibly be so, if all of the conditions for successful wintering are present, but as such conditions are usually not all of them present in many, if any cellars, it is always best to be on the safe side, hence the advice to have the cellar dark.

If the cellar is lacking in many of the qualities which go to make a good cellar for wintering bees, then it may be best not to try it at all, in which case we must try the next best plan, wintering on the summer stands packed with chaff, fine hay or straw. While a chaff hive is the preferable thing, yet it is not supposable that any old-fashioned box-hive would be made that way, so we must fix them the best way we can, which is to go to the store and procure a dry-goods box of the suitable size, or otherwise make one, in which the hive can be set, and leave room all around it for the packing.

A space of about four inches is the right amount to leave, for experience has proven that this is better than a larger or smaller amount. The bottom-board should be raised that distance above the bottom of the box, and after having packed under it, it should be secured there, and so as to touch the front side of the box also, as the bees must pass over this to get outside of the box. One-half inch above the bottom-board a thinner board should be secured in some way to both the hive and box, immediately above the entrance to the hive, so as to keep the packing material from obstructing the passage of the bees, for this is now to become the entrance to the hive.

Having this fixed, and the hive thoroughly secured to its place, we now put in the packing, pressing it in tightly, so that as even a temperature as possible can be maintained inside of the hive, packing the material in as nearly alike on all sides as possible. When the top of the hive is reached, the holes which give access to the surplus honey arrangement, should be opened, and two or three thicknesses of cotton cloth spread over these holes so as to keep the packing from rattling down into the hive, and also so that in thus providing for ventilation a direct draft shall not be allowed through the hive.

If the hive is not provided with any holes in the top of it, two or three should be bored through the top so as to give the needed ventilation. Having the holes open, and the cloth on, fill in the packing to the depth of four inches all over the top of the other packing, as well as over the hive, keeping it as evenly distributed as possible, but allowing it to be more loose and open than at the sides. The box should be tall enough so as to come an inch above the packing, so that the cover, which is now to be put on, shall not touch it. This is important, for where the packing touches the cover to the box, it will absorb the moisture which condenses on the cover to such an extent that all will become wet and moldy.

Borodino, N. Y.

STRAIGHT COMBS.

Prevention of Robbing in an Apiary, etc.

Written for the American Bee Journal

BY JOHN S. REESE.

In reading over the answers to Query 600, on page 839 of the AMERICAN BEE JOURNAL for 1888, I do not see that any of them give "B. C." a simple and positive remedy for his trouble with warping and sagging combs. As I understand it, he seems to be in the same "peck of trouble" that I have had, and as my instructor was the very best experience, I will offer it to the inexperienced, and especially the beginner.

We will take it for granted that we all use, or can use, a frame with a comb-guide, and with the comb-guide the top-bar can be made lighter, comparatively stronger, and less liable to sag, which is a serious fault in my apiary. I would suggest the use of flat-bottom comb-foundation, of medium weight, with wire made in it, perpendicular of course. I say "flat-bottom," as I *now* think that it is stronger in proportion to its weight per square foot, than any other; and I say "wire made in the foundation," as it is obvious that "B. C.," nor any one else, could get it imbedded as well as it is done when made in the start.

Now, to fasten the foundation on the comb-guide, make a form that will fit into the frame one-half through, being sure to have it fit snug and firm under the comb-guide. Lay on the foundation, with small strips of wood, say ⅛ by 3-16 of an inch, and drive small wire nails ⅝ of an inch long, slanting through the strip, foundation, comb-guide, and into the top-bar. This will make all more rigid, and hold the foundation beyond all question. These little strips will not take up much space, and I make them very rapidly on a foot-power circular saw.

This nailing foundation in frames may seem a little fussy to the veteran, but I believe that I can rip out the strips and put the foundation in 100 frames in one-half the time that it would take to wire the same number of frames, to say nothing of imbedding the wires in the foundation.

The mere fact of wires being fastened to the bottom-bar of the frame does not prevent sagging, and the only advantage that I have found in having the frames wired is, to hold the comb more securely to the bottom-bar when handling the brood-frames; and the day is fast approaching when brood-frames will be handled very little—not enough to justify the expense and trouble of wiring frames.

Robbing Checked Instantly and Positively.

From the number of inquiries and remedies offered, robbing still seems to be quite a bug-bear to many. My apiary is crowded into a very limited space, and I was much troubled until I discovered the plan of using wire cones at the hive-entrance, arranged with a small hole in the apex, and pointing out from the hive, which would allow the bees and robbers and all to pass out, but would allow none to pass in, until the trap was removed, which should be done at night, when the robbers would be at their respective homes; and the bees that could

not get into their homes during the day, on account of the cones, will then gladly enter, and prepare for a vigorous defense for the next day.

These cones are very easily made, and are from 2 to 3 inches long, and one or more are tacked over one-inch auger-holes, made in a thin strip of wood, as long as the entrance, about 1½ inches wide.

A few of these strips with cones can be kept conveniently near, and will be found useful in other ways, such as preventing swarms from entering some hive that you do not wish them to enter, etc.

Bees Swarming Out.

The first fine days next spring, look out for weak colonies to swarm out, and do not forget that prevention is very simple, by placing a piece of perforated zinc at the entrance of the hives of all the weak colonies.

Last season, a swarm, after being hived in good condition, took a notion to desert, and as I was on hand at the time, with a piece of perforated-zinc, which I got over the hive-entrance before the queen had gotten out, of course the bees returned, and the next day they tried it over again, with the "laugh" still on my side.

Winchester, Ky.

SWEET CLOVER.

Its Honey-Value in the Region of Salt Lake City.

Written for Gleanings in Bee-Culture

BY J. C. SWANER.

Sweet clover grows here along the water-courses, moist waste places, along the roadsides, and in neglected fields. It grows from six inches to as many feet in height, according to the location, and it is covered with an abundance of bloom from top to bottom, yielding in most seasons an abundance of nectar, which, after being gathered and stored, produces honey of the very best quality and color. It does not generally bloom in the first year; but in the second it commences about the first of July, and keeps up a continual bloom until killed by frost, furnishing bees with pasturage, generally from the middle of July until the latter part of August.

Sweet clover is sometimes used for pasturage, and also for making hay, if cut when young, though it is a long way behind alfalfa for that purpose. Though it is sometimes relished by stock, very few would sow it for feeding. If eaten while green, it is in a measure a cause of hoven, or bloat, in cows. If you wish good milk or butter you had better not feed it to milch cows, as it imparts a very disagreeable taste to it. If eaten off by stock it will soon recover, and produce an abundance of bloom for the bees.

It is a very fair fertilizer; and it is also claimed that; if planted on alkali land, it will feed on the alkali and exhaust it, besides bringing to the surface, with its long roots, elements necessary to plant-life.

As sweet clover is biennial, it is not a very hard weed to eradicate, and very seldom troubles cultivated fields, though it will sometimes seed a field; and if such field is planted to grain the following season, it will come up, and is cut off only with the reaper. Next season, if the same field be neglected, it will quite likely be covered with sweet clover, and that, too, sometimes as high as your head. If a field is

Sweet Clover.

cultivated as it should be for two seasons, the clover will entirely disappear. The plant requires a little moisture in the soil the first year; but after that it will grow without. I consider it, for my part, a great deal better to see a roadside lined with it than the sunflowers, etc., that generally grow in such places.

Now, to sum up, sweet clover is our main honey crop in this locality. It is our best honey; and that honey, I may say without boasting, compares favorably with the best grades known.

I do not think it will pay to sow it for honey alone, unless on such land as is considered worthless; but I think it would be a benefit to such land.

As to the amount of nectar it will produce per acre, I am unable to say; but I think it will compare favorably with white clover; in fact, it produces fully two-thirds of our honey crop in this locality, and I should consider this a poor country for honey, if it were destroyed; but as it is, we generally get a crop; that is, the bees generally have some honey to spare.

Salt Lake City, Utah.

Mr. Root adds: "Mr. Swaner has been quite careful and conscientious in giving the objectionable features of sweet clover in the region of Salt Lake City, as well as the good qualities. In that locality there are a very few plants that will stand the fierce drouth of summer; but sweet clover seems to be one of them, and it might be easily grown on thousands of acres that now bear nothing but weeds of no value. Much of this desert land is so light that it is very easily prepared for a seed-bed. After sweet clover has once got a start, it furnishes about as permanent bee-pasturage as anything I have ever found. In fact, I could not find any of the bee-keepers around Salt Lake City or Ogden who say they ever have seasons of no honey at all, such as we have had here several times during the past twenty years. Not only does sweet clover yield honey, but, after testing it in a good many places, I pronounced it equal in appearance and flavor to any honey we have in the world.

"The first time I tasted it at friend Woodmanse's I uttered an exclamation of surprise, and asked him what was the source of the beautiful honey. Even before he spoke, there seemed something familiar in the delicate flavor; and when he said sweet clover, I recognized it as plainly as if it were but a piece of stalk in my mouth. It tastes very much as sweet clover smells when its green leaves are bruised slightly. The flavor is not rank enough to be at all disagreeable. The extracted honey is very thick, and has the same beautiful flavor as the comb honey. It seems to me that these facts give us a wonderful opening for starting a honey-farm where land is cheap, and nothing else will grow on account of the long severe drouths."

[Sweet clover possesses this advantage, that while it comes into bloom late, with the fall flowers, it produces nice, thick honey which is second to none as to quality and flavor. Let all who have waste land sow it for the honey which it so bountifully yields. The seed can be obtained at this office, in any quantity.—ED.]

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble, and at the same time help to scatter apicultural knowledge and promote the welfare of our pursuit.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Jan. 30, 31.—N.E.O..N.Pa.& W. N.Y., at Franklin, Pa.
C. H. Coon, Sec., New Lyme, Ohio.

Feb. 6.—Northeastern Michigan, at Flint, Mich.
W. Z. Hutchinson, Sec., Flint, Mich.

Feb. 7.—Wisconsin State, at Madison, Wis.
C. A. Hatch, Pres., Ithaca, Wis.

May 1, 2.—Texas State, at Greenville, Tex.
G. A. Wilson, Sec., McKinney, Tex.

May 4.—Susquehanna County, at Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

The Winter in Austria.—Alex. Schroeder, Jr., of Trieste, Austria, on Dec. 27, 1888, writes:

We had splendid weather in December up to the 22d, when rains and fogs set in. My bees were flying busily on the Nespola Japonica and the watering place. I hope that they will go through the winter all right, though I do not like *too* mild winters, with occasional frosts.

Mysterious Carelessness.—Mr. L. Eastwood, Waterville, O., on Jan. 7, 1889, writes:

Years ago bee-keeping was full of mysteries, but one modern mystery remains unsolved, and that is, the carelessness of bee-keepers of their own interests, by remaining out of the Bee Keepers' Union. It is a pleasure to belong to a society where men are equal, and covetousness unknown; there the strong are willing to help the weak without, and where there is no danger of retroactive salary-grabbing. It may be asking too much of our good friends, the officers, but while they are doing so well, I do not want to see any change. It is a bad time to "swap horses while fording a stream," and we are not yet over the dark waters of Prejudice and Ignorance.

White Clover Looks Promising.—Frank Coverdale, Welton, Iowa, on Jan. 10, 1889, says:

My bees are in the cellar, and thus far they are wintering well. They are very quiet, with no signs of disease yet, with the temperature at 42° to 44°. The first snow-storm of any account fell yesterday and day before, to the depth of about 5 inches. I was glad to see the ground covered. It will help to save the clover, which is now in a promising condition. The AMERICAN BEE JOURNAL is superior to all other bee-papers.

Heart's-Ease Honey, etc.—S. G. Palmer, Tobias, Nebr., on Jan. 9, 1889, says:

I am a beginner in bee-keeping, and I have 13 colonies of bees in chaff hives. They are wintering finely, having a flight every few days. I gave each colony 25 pounds of honey for winter. The crop of honey was light here the past season. We have to depend upon heart's-ease for our honey here, which lasted only about twelve days. It gives a good quality of light, thick honey.

Buckwheat and Fall Flowers.—Mrs. O. F. Jackson, Sigourney, Iowa, on Jan. 12, 1889, says:

White clover honey was quite scarce here the past season, and most of our honey was gathered from buckwheat and fall flowers, but it was excellent quality. The bees filled the brood-chambers, and gave some surplus in the sections. We have honey for our buckwheat cakes, and I have sold enough to pay all expenses of the past season. I did not have to feed any of my colonies for winter, as I took frames of honey from strong colonies, and gave them to late swarms. I feel quite hopeful of their safe wintering, when they have an abundance of natural stores.

Hybridizing Bees.—C. Gardiner, Lyn, Ont., on Jan. 8, 1889, asks the following questions:

1. Having 100 colonies of brown Germans, would crossing the queens with selected Italian drones improve them as honey-gatherers? 2. If an improvement, could drones be purchased by the pound from selected stock? 3. Would drones be accepted, or could they be united, and be all right in the hives? 4. What would drones be worth by the pound?

By request, Mr. James Heddon replies to the above as follows:

1. No better bees can be produced than by crossing your brown German queens with just the right kind or strain of Italians.

2. I do not know what to say about the practicability of buying drones. My way always was, and I guess always will be, to buy the Italian queens and keep them at work in drone-comb, getting my drones in that way.

Valuable.—W. M. Rowe, Lawrence, Kans., on Jan. 14, 1889, writes:

I wish to congratulate the Editor on the improvements made in the AMERICAN BEE JOURNAL. It grows better and more interesting with each issue. The number for Jan. 12, 1889, alone, is worth the price of a year's subscription. Success to it.

Bees Did Very Well.—O. P. Miner, Cincinnatus, N. Y., on Jan. 8, 1889, writes:

I had 10 colonies in the spring of 1888, which I increased to 16, and took 370 pounds of comb honey. One colony that did not swarm stored 97 pounds. Considering the poor season, with scarcely any yield from basswood, I think that this is doing very well. My surplus was obtained principally from white and Alsike clover, with some from milk-weed. My bees have done better than the average in this locality. On Dec. 26, and two or three succeeding days, the bees had good flights, and appeared to be in a healthy condition.

Double-Walled Hives, etc.—Mr. Daniel Wyss, New Philadelphia, Ohio, on Jan. 13, 1889, writes:

I have read the AMERICAN BEE JOURNAL with great pleasure since June, 1886. I read quite a number of papers, but no other gives me more pleasure than it does. I have 14 colonies of bees in splendid condition, packed on the summer stands, in hives of my own manufacture. The hives consists of Simplicity frames, lower story and bottom double, with chaff filled between the walls. On this I have four boards 8 inches wide, nailed together like a box without a bottom; this fits on the main hive, and answers as a receptacle for a super, or section-crate in the summer, and for packing material in the winter. On top of the brood-nest I lay one or two thicknesses of burlap, and on top of that I put about a bushel of fine wood shavings; such as is made when sawing out sections. To complete the work, I put a chaff cushion, 4 or 5 inches thick, on the other packing material; and a roof or cover finishes the hive. This hive suits me. My bees had a nice flight yesterday.

Poor Stores for Winter.—S. J. Church, Cedar Rapids, Iowa, on Jan. 12, 1889, says:

My 59 colonies of bees were put into the cellar on Dec. 1, 1888, and so far they are wintering first rate. They stored 200 pounds of comb honey, and 400 pounds of extracted, all being fall honey except 100 pounds from linden. Last winter and spring I lost two-thirds of the bees, leaving 37 weak colonies to commence with on June 1. I think that the cause of loss was poor stores for winter food.

Maine Bee-Keepers.—Mr. L. F. Abbott, editor of the Lewiston *Journal* writes as follows:

In the face of one of the poorest honey seasons for 25 years, the Maine bee-keepers are as hopeful and enthusiastic as ever. It is useless to be discouraged over a failure now and then. It is better far to keep right on in the even tenor of our way, and as far as possible avert the results of poor seasons by good management. How to do this, the AMERICAN BEE JOURNAL is showing most admirably, and I hope that the editor may long continue in the good work, and be well paid for it, too.

Honey-Vinegar—Hoarhound.—J. H. Brown, Prescott, Ariz., on Jan. 1, 1889, writes:

Please answer the following: 1. How long will bees prosper without new stock from a distance? 2. Will vinegar made of honey keep without change, if bottled up air-tight? I secured about a ton of honey this year, and about the same last year, from about 40 colonies, spring count, most of it being dark honey. Of all the plants we have sowed here, nothing will grow but hoarhound, and if anything would grow that cattle would eat, it would do us no good as a honey-plant.

[1. For an unlimited time.

2. As honey-vinegar is made by the combined action of heat and air, it must not be corked up tight—it needs air.—ED.]

Bees had Frequent Flights.—F. H. McDonald, Star, Idaho, on Jan. 2, 1889, writes:

I had 9 colonies of bees last spring, which I increased to 23, by natural swarming. I obtained about 300 pounds of honey, and sold 200 pounds at 20 cents per pound. Bees got plenty of honey for winter stores. They have flown on almost every day until two weeks ago, when the ground froze 4 inches deep, with just snow enough to cover the ground. It is clear and pleasant through the day. This morning it was the coldest—the mercury being at zero.

Good Honey-Flow from Buckwheat.—G. D. Schell, Barron Lake, Mich., on Dec. 8t, 1888, writes:

We hear from every part of the country, that bee-keeping does not pay, but my bees have paid expenses, with a small balance over. I took from the bee-cellar on April 15, 1888, 82 colonies in Langstroth hives in fair condition, but the cold and rainy weather for ten or twelve days, reduced the number to 69 colonies, that I built up during apple-bloom, which was the best we have had for years. The hives were running over with bees, eager for the basswood harvest, which was a total failure, and to my dismay the white clover was mostly winter-killed; so with millions of bees, and nothing to do, the future looked discouraging until the buckwheat bloomed. My, but didn't the bees hustle then? Everything was soon running over with the best of buckwheat honey. I got over 1,000 pounds of it, and increased my apiary to 83 colonies, which were put into the cellar with plenty of stores, but light in bees. They are wintering nicely so far.

Splendid Weather for Bees.—Chas. E. Dow, Lawrence, Mass., on Jan. 8, 1889, says:

We are having splendid weather. There is no snow on the ground, and the river is free from ice. Inside of two weeks there have been six days that my bees have had good flights.

Poor Locality for Bees.—Isaac Darling, Steuben, Ohio, on Jan. 14, 1889, writes:

My bees for the past four years have not paid more than 7 per cent. on the capital invested, to say nothing of the time that I have spent with them. I have come to the conclusion that this locality is a poor one for bees, and unless I can do better this year, I think I will try and dispose of them.

Warm Winter So Far.—Mr. P. J. Bates, White Hall, Ills., on Jan. 16, 1889, says:

So far this winter we have had unusually high temperature—the first ten days of January the mean temperature being 30° above zero. In 1888 the mean temperature was a little over 12°; in 1887, a little over 3°. So far this has been a very favorable winter on the bees in this section of the country, as the most of them went into wioter quarters rather short of stores. They have been quiet, and I am in hopes that they will come through all right.

Cider Stores and Bee-Diarrhea.—Joseph Funk, Beach City, O., on Jan. 11, 1889, writes:

Some of my bees are in bad condition. They got into some boiled-down cider that was almost like molasses. There was nearly a colony of bees in it before I noticed it. I dipped out the bees and spread them on the grass, and they carried so much of the cider into their hive that they now have the diarrhea very badly. What can I do to remedy it? They crawl out of the hive on the floor, and die by the quart daily. My honey crop was so short, and the bees swarmed so late, that 6 colonies did not build combs enough to cluster on, and they starved before cold weather came. I fear they will all dwindle away before they can get new honey in the spring. After July 1, they did not gather enough to live on. The last two seasons were the poorest that I have seen for 50 years. I kept bees for 47 years in succession, using the box-hives until four years ago, when I commenced to use the movable-frame hives. I will have a nice lot of bees for next season, if they do not succumb this winter.

[The bees only need a chance to fly and cleanse themselves. This they can have on any warm day, if they are on the summer stands. If they are in the cellar, they can be taken out and given a flight. Should there be no day suitable for this very soon, you can take the hive into a light, warm room, put a square frame of netting over it, and let the bees fly, permitting the temperature to run down, when the bees will cluster again on the frames, and the hive can be returned to its place. The latter may not pay for the trouble, unless the queens are valuable, or the affected colonies very few and choice.—ED.]

The Union.—James A. Nelson, Muncie, Kans., on Jan. 9, 1889, when sending his dues to the Manager, writes as follows:

I suppose I have lost my vote for officers, but I expect my choice will be elected, viz: all of the old officers. They do as well as could be expected, as well as any one could do, and much better than some would do. I hope nothing may happen to cause the Manager to resign. I trust that the Union may prosper, even if the members are few in proportion to the number of bee-keepers who should belong to it.

[Yes; the old officers were all re-elected. It is surpassing strange that thousands do not flock to the support of the Union. It certainly is their *duty* to sustain an organization created and managed to sustain their rights.—ED.]

Value of Old Combs.—G. H. Ashby, Albion, N. Y., on Jan. 17, 1889, on the relative value of combs and comb foundation, remarks as follows:

For bee-keepers to melt up good combs and use comb foundation, seems to me to be ruinous. Combs for extracting improve with age, for several years, when well cared for, as they grow tougher, and are not as liable to break in handling. If on melting combs you get one-half as many sheets of foundation as you had combs, you would do well. Combs can be kept clean and nice easier than they can be cut out of frames, to say nothing of melting and making foundation. Three cents worth of brimstone, and a very little time, will keep the moth from a thousand frames of comb. All the surplus we obtained in these parts this season was from drawn combs, in sections or extracting combs. It was obtained before June 25, and not a particle of foundation was drawn out in the brood-chamber or surplus case. Where would we have been had we destroyed our combs!

What time of the year should sweet clover seed be scattered in waste places, to obtain the best results?

[It can be sown at any time, and if scattered upon the snow and allowed to sink down into the ground when the thaw comes, it will germinate and prosper. It does not bloom until the second season.—ED.]

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

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Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
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We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 50	1 40
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Cook's Manual (**old edition**)	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of of any other papers. Send for such to the publishers of the papers you want.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

Simmins' Non-Swarming System, and the AMERICAN BEE JOURNAL for one year, for $1.25. The subscription to the BEE JOURNAL may begin anew at any time.

Honey and Beeswax Market.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 17@18c.; best 2-lbs., 16@17c. Extracted, 8@9c. The trade is dull.
Jan. 19. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 16@18c. Supply is not large, but about equal to the demand. Market will be bare of comb boney long before the new crop is ready.
BEESWAX.—22@23c.
Jan. 18. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 17@18c.; 2-lbs., 15@16c. Good dark 1-lbs., 14@15c.; 2-lbs., 12@13c. Buckwheat 1-lbs., 18@14c.; 2-lbs., 11@11½c.—Extracted, 6½@8½c., depending upon quality and style of package. Market dull and stock sells slowly.
BEESWAX.—22c.
Jan. 18. S. T. FISH & CO., 189 S. Water St.

ST. LOUIS.

HONEY.—Choice white clover comb, 13@15c.; fair 11@12c.; dark, 8@10c. Extracted, dark, in barrels, 5@5½c.; choice, 5½@6c.; in cans, 6@7½c. Market is quiet but steady.
BEESWAX.—20c. for prime.
Jan. 17. D. G. TUTT & CO., Commercial St.

CHICAGO.

HONEY.—Best 1-lbs., 17@18c. Extracted, 7@9c. for best quality, according to body, flavor and style of package. Trade is limited to local consumption. Off grades of comb honey are slow at lower figures than given above. But few will buy dark comb.
BEESWAX.—22c. R. A. BURNETT,
Jan. 17. 161 South Water St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 15@16c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c.; fair 1-lbs., 12@14c. Extracted, white, in kegs and ½-barrels, 8½@9c.; amber in same, 7½@8c.; in pails and tin, white, 9½@10c.; in barrels and ½-barrels, dark, 5½@6c. Market dull. The very best sells slowly, and inferior qualities are neglected very much. Damaged, broken and leaky comb honey not wanted.
BEESWAX.—22@23c.
Jan. 10. A. V. BISHOP, 142 W. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@16c. Demand slow, with a smaller supply than ever at this season for the past 10 years.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Jan. 9. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—White 1-lbs., 16@17c.; fall, 14@15c.; California 1-lbs. 16@17c.; white 2-lbs., 12@15c. Extracted, white California, 7@8c.
BEESWAX.—20c.
Jan. 7. CLEMONS, CLOON & CO., cor 4th & Walnut.

KANSAS CITY.

HONEY.—Choice 1-pounds, 15@16c.; dark 1-lbs. 12c.; 2-lbs., 14c.; dark, 11c. White extracted in 60-lb. cans, 8c.; amber, 7c.; in barrels and kegs, 5@8c. Demand good, prices steady, and stock large.
BEESWAX.—None in market.
Jan. 4. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—White, in 1-lb. sections, 15@16c. Extracted, 9@10c.
BEESWAX.—20c.
Jan. 1. J. M. CLARK & CO., 1409 Fifteenth St.

NEW YORK.

HONEY.—We quote: Fancy white 1-lbs., 14@15c.; 2-lbs, 12c Fair white 1-lbs., 14@15c.; 2-lbs., 10 to 11c. Buckwheat 1-lbs, 10@11c.; 2-lbs., 9@10c. Extracted, white, 7½@8c.; dark buckwheat, 6@6½c. which is in good demand. Market dull, except for extracted buckwheat; for all other kinds it is quiet, owing to unseasonable weather, we believe.
HILDRETH BROS. & SEGELKEN,
Jan. 10. 28 & 30 W. Broadway, near Duane St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½ cents; amber, 6c. Comb, white 1-lbs, 13@14c.; 2-lbs., 13c.; amber, 10@11c. Demand is of a jobbing nature, and arrivals are small.
BEESWAX.—19@20c.
Jan. 8. SCHACHT & LEMCKE, 122-124 Davis St.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2 00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Photographs of Bee-Keepers.—The "medley" gotten up by E. O. Tuttle, containing the faces of 120 representative apiarists, and a printed sketch of each one, will be sent with the BEE JOURNAL for one year for $1.75; or we will present it *free*, by mail, to any one, for a club of three subscribers and $3.00.

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Feb. 2, 1889. No. 5.

EDITORIAL BUZZINGS.

Love is the impulse which directs the world,
And all things know it and obey its power.
Man, in the maelstrom of his passions whirled;
The *bee*, that takes the pollen to the flower.

The Bee-Keepers' Advance and Poultryman's Journal for January is on our desk. It is in new form—two columns on a page, and contains 32 pages. It is well printed and edited. We congratulate Bro. Mason on its appearance.

A Correspondent desires us to state the price of the *Australasian Bee Journal*, and the address of the publisher. It is a sixteen-page monthly edited by I. Hopkins, and published by Hopkins, Hayr & Co., Auckland, New Zealand. With postage it will take $2.00 a year to get it.

The Apiary of Mr. H. J. Rogers, of Stannards' Corners, N. Y., is on our desk. It shows about 80 hives, and was taken in summer, when the trees were clothed with leaves, the apiarist was at work in his shirt-sleeves, and his family were out with bare heads watching his movements and enjoying the balmy air. It is placed in our Museum Album.

The Number and Names of the new States shortly to be admitted into the Union, is the subject of every one's thoughts, and Ausburn Towner, on "Our Would-be States," in *Frank Leslie's Popular Monthly* for February, gives us much valuable information about Dakota, Montana, Idaho, Wyoming, Washington, Arizona and New Mexico. The stories of the number are excellent, and the illustrations beautiful.

When D. A. Jones and Frank Benton were looking for the Syrian bees, they told us of some of their very interesting experiences in trying to bring hives of bees from Jerusalem to Joppa, there to take a boat for Europe. They had to hire natives to carry the hives of bees (in clay cylinders) on their shoulders over that rocky and mountainous route, beset with dangers, etc. The donkey and camel drivers had it all their own way then. Now, we see by the news from Europe that "the Sultan has just granted a concession (charter) for the building of a railway from Joppa (or Jaffa) to Jerusalem. This will do away with the most disagreeable portion of the route for western visitors to the city of Jerusalem, and the land of Palestine.

Progress is the order of the day. Mr. W. Z. Hutchinson thus discusses in the *Review* the progress of the present, and compares it with the methods of apiculture in the past:

But it is a pleasure to note that the fixtures and methods of to-day are superior even to those of half a dozen years ago. In this matter of sections and their management, we have most emphatically discarded the plan of putting them on the hives and taking them off one at a time; a few bee-keepers still manipulate them by the wide frame full; but the majority of bee-keepers have adopted some sort of a case or super by means of which 25 or 30 sections can be handled at one time quicker than a wink; and "tiering-up" may be practiced. The old, cumbersome, complicated, laborious, side-storing system is, practically, laid upon the shelf. We feel like taking it for granted that "top-storing" and "tiering-up" with some kind of a case, crate or rack, furnish the best method now known for securing comb honey; that it is the only plan that enables us to handle a "honey shower" with perfect ease, "rattling" the sections on and off the hives in a rapid, business-like way.

The Apiarist who is careful, intelligent and painstaking will succeed, while the negligent and careless bee-keeper will sooner or later fail. Mr. G. M. Doolittle, in the *Rural Home*, makes the following statement, which we would thoroughly endorse and commend to the careful consideration of all:

If any person expects to realize a large income from his bees and never look after their condition (simply hive them and put on the sections), he will find himself greatly mistaken. How many that read this know the exact condition of their bees at all times? If you do not, my friend, you are not caring for them as well as you would for your horse or cow, neither can you expect any more profit from them than you would from a cow or horse if you never looked after them. Bee-keeping only pays when our pets are properly looked after, and if any one cannot spend the amount of time on them which they require, he had better keep out of the business, for sooner or later he will turn away from it in disgust.

The Horticultural Society for Lucas County, Ohio, has elected Dr. A. B. Mason as its President for the coming year. He will fill the office with honor to the society.

Winter Work should now be attended to. It is no time to fold your hands and dream of the future. Concerning the work which should now be given attention, Mr. C. H. Dibbern remarks as follows in the *Western Plowman*:

This is the time to do some heavy thinking and studying. A good deal of work can also be done now in the work-shop, making hives, cases, and other fixtures that will be needed next summer. Sections can be put together, foundation put in them, and placed in cases ready to go on the hives. These are generally found very handy when the busy time comes. It is also a good time to look back over the past season's operations, and determine wherein we can improve in the future.

Increasing an Apiary.—Jacob H. Warner, Middleburg, N. Y., on Jan. 16, 1889, asks for advice on increasing his apiary:

I am a middle-aged man, with declining health. I have owned a few colonies of bees for the last year, and I thought that it paid me fairly, and I would like to own a larger stock. Some have advised me to send to the South, and get a few nuclei. Others think that it is best to buy the native bees. Do you think that it is best to increase my apiary from the colonies I have? Which of the three ways would you advise me to take?

The safest plan will be to increase the colonies you have, and if they are black bees, buy some Italian queens and introduce them. This will give you experience as well as increase.

The British Bee Journal is now publishing articles on queen rearing by Henry Alley, simultaneously with their appearance in the *Apiculturist*. Dr. C. C. Miller, and his methods, are also receiving illustrated attention in that paper. Americans are now "having their day" in our British cotemporary. British honey imports during December, 1888, amounted to 3,033 pounds.

Catalogues for 1889 are on our desk from—

A. D. Cozad, Kremis, Pa.—4 pages—Bee-Keepers' Supplies and Plants.

Cole's Garden, Farm and Flower Seeds, Pella, Iowa—50 pages—Seeds, Garden Tools, etc.

Landreth's Vegetable Garden Seeds—50 pages—Kitchen Garden Calendar, Price List, etc., Philadelphia, Pa.

F. E. Myers & Bro., Ashland, O.—Poster and Calendar—Myers Pumps and Hay Tools.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

BOOK REVIEW.

Langstroth on the Hive and Honey-Bee, revised, enlarged, and completed by Chas. Dadant & Son. This is the title of the new edition of the Langstroth book, just published by Dadant & Son, at Hamilton, Ills.

The first edition of Mr. Langstroth's work was published in 1853. The last revision was made in 1859, and now after 30 years, during which time more has been done to make bee-culture thoroughly practical than in a century previously, another revision has become necessary, and we are glad to know that it has been done so thoroughly by those eminently practical apiarists, Messrs. Charles Dadant & Son. Former editions have sold rapidly, and so will the present one. It is beautifully printed, embellished with 18 full-page plates, and 197 engravings, forming a handsome volume of over 500 pages.

The first chapter is devoted to the "Physiology of the Honey-Bee," and covers the entire subject in a very interesting and instructive manner. On the matter of "color and odor" as a means of attracting bees, it avers that both attract the bees, but contends that "the smell of honey is certainly the main attraction." It asserts that "this attraction is so powerful, that frequently at day-break in the summer, the bees will be found in full flight, gathering the honey which has been secreted in the night, when nothing on the preceding evening could have predicted such a crop; this happens especially when there is a production of honey-dew after a storm."

The antennæ, its nerve structures, hairs, etc., are illustrated, and the same view is taken as in Cheshire's work, viz: that both the organs of hearing and smelling are found in the antennæ—the one being called the "smell-hollows," and the other the "ear-holes." Our author claims that they can smell honey a mile away. To remove the antennæ, therefore, is to deprive bees of their intellect.

Chapter II treats of wax, propolis, etc.; Chapter III of honey, pollen, etc.; and Chapter IV of bee-hives. Here are illustrated and described many of the hives in use from the earthen hives of Africa to the movable-frame hives of America; including the straw hives of Europe, and the observing hives for exhibitions.

Chapter V treats of the popular management of bees, and the aids thereto, such as smokers, veils, etc. The stinging propensities of bees, and the remedies for the poison when injected into the human system, are also described in this chapter.

Swarming and Dividing occupy the sixth and seventh Chapters. Full and explicit directions are given for the complete and economic management of the apiary during the very important period of swarming. The making of nuclei is considered, and this leads us to queen-rearing, to which Chapter VIII is devoted.

On the races of bees, Chapter IX gives the history of their introduction into America; the different varieties are described, and the preference is given to the Italians, in these words:

"The great superiority of this race over any other race known, is now universally acknowledged; for it has victoriously stood the test of practical bee-keepers, side by side with the common bees. The ultimate superseding of the common bee by the Italians, in this country, is but a matter of time."

Chapter X treats of the location of the apiary, the transferring of bees to movable-comb hives; the construction and use of honey-houses, etc., while the "Shipping and Transporting of Bees" is the subject-matter of Chapter XI.

When, What, and How to Feed Bees occupy Chapter XII. Then follow Chapters devoted to Wintering, Robbing, Comb Foundation, Pasturage and Overstocking, Comb and Extracted Honey, Diseases of Bees, Enemies of Bees, etc.

Chapter XX is devoted to the Handling and Marketing of Honey, and its uses for both food and medicine. It is claimed, and very rightly too, that during the past few years the increase of honey-production has been such that the "consumption has barely kept pace with it." The revisers also take this hopeful view of the situation: "But it will soon take its rank among necessities, like butter or syrups, and change from a luxury to a staple."

Happily for honey-producers the day for adulteration is past, and on page 484 we read this characteristic paragraph:

"The present low prices have put an end to adulteration, for a fair grade of....honey can now be bought as cheaply at wholesale as the vile, unhealthy compound, adorned with the names of golden syrup, golden drip, etc."

The authors then poke a little fun at the ridiculous *canards* about "the Wiley lie, concerning the manufacture of comb honey by machinery," and of adulterating liquid honey with glucose, which will cost at wholesale more than the honey sought to be adulterated. They sarcastically say, on page 480, that it is more likely that glucose will be adulterated with honey, than the opposite!

On page 493 a quotation is given from our pamphlet on "Honey as Food and Medicine," concerning the value of honey as a means of building up wasted tissues, and brightening the intellect, and then our authors remark thus: "These words are so true that we have found them translated in European books, by noted apiarists." Then follows a number of useful receipts for honey comestibles and medicines.

"Beeswax and its Uses" being the title of Chapter XXI, directions are given for the production of beeswax, and the many uses for it are enumerated, and receipts given for salves, mixtures, etc.

The last two chapters are devoted to "Bees, Fruits and Flowers," and "Bee-Keepers' Calendar, Mistakes and Axioms." In the former is shown the great value of bees to fruit trees, in fructifying the flowers and increasing the quantity and quality of the fruit.

It also endorses the work of the "National Bee-Keepers' Union," and adds: "Some such association is as necessary to bee-keepers as are Trades-Unions to any group of laborers—"United we stand; divided we fall."

One peculiarity of this excellent book is very rare and well worth metioning. It not only has a copious Index at the end, but a "Table of Contents" at the beginning, referring to the various subjects by bold-face figures (thus **687**) corresponding to similar figures in the body of the work (thus **719**), by means of which one may find any item desired (**687**) in an instant.

By means of these figures the reader is carried from one portion of the book to another, and enabled to "take in" all that is said upon that subject without losing interest therein, or consuming time to find the different matters referred to—making it as *interesting* as a novel; and at the same time as *concise* as historical adventures, and as *complete* and *perfect* as a book of laws.

Take it all in all, this book (Langstroth Revised) is a treasure-house of precious gems—as *vast* as the pursuit, and as *valuable* to apiarists generally as the hoarded wealth of an empire to its patriots and statesmen!

We can furnish this book by return mail for $2.00, the publishers' price. This book and the AMERICAN BEE JOURNAL for one year for $2.75, if sent direct to this office.

We have Received many nice notices of the AMERICAN BEE JOURNAL during the past few weeks, but the following are unique and racy:

Every one in any way interested in bees and the production of honey should have the AMERICAN BEE JOURNAL. It is law and gospel on these subjects, stable as the hills, right up to the times, and only one dollar a year.—*Journal, Lewiston, Maine.*

The AMERICAN BEE JOURNAL is published weekly, and is original. It is oftener quoted, perhaps, than any other authority, and its testimony is reliable. Good bee-keepers should subscribe for it if they want to keep posted on their business.—*Colorado Farmer.*

Convention Notices.

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at the Court House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.
H. M. SEELEY, *Sec.*

☞ The Northeastern Michigan Bee-Keepers' Association will hold its annual convention on Feb. 6, 1889, at the Dayton Hotel in Flint, Mich., at 10 a.m.
W. Z. HUTCHINSON, *Sec.*

☞ The Northeastern Ohio, Northern Pennsylvania and Western New York Bee-Keepers' Association will hold its tenth annual convention in the City Hall at Franklin, Pa., on Wednesday and Thursday, Jan. 30 and 31, 1889. Good hotel accommodations have been secured at one dollar per day.
C. H. COON, *Sec.*

☞ The 11th annual session of the Texas State Bee-Keepers' Association will be held in the apiary of W. R. Graham, of Greenville, Hunt Co., Tex., on May 1 and 2, 1889. All bee-keepers are invited. The last meeting was held here last May, and was the best ever held. So we look forward to a good time next May. A cordial welcome and hospitality will be tendered to all who come. G. A. WILSON, *Sec.*

QUERIES AND REPLIES.

The Highest Temperature Endurable by Bees.

Written for the American Bee Journal

Query 609.—How high a temperature of heat will bees endure, and live?—Michigan.

I do not know.—JAMES HEDDON.

I do not know.—H. D. CUTTING.

I do not know.—EUGENE SECOR.

I do not know.—J. M. HAMBAUGH.

I do not know.—A. B. MASON.

I do not know.—WILL M. BARNUM.

I do not know.—M. MAHIN.

I do not know. Who can tell?—P. L. VIALLON.

There is no practical utility to that question. Next.—MRS. L. HARRISON.

I do not know. I presume that it might differ.—A. J. COOK.

Over 100°, Fahr. Beyond this I have never experimented.—J. P. H. BROWN.

They would succumb at about the point where the wax would melt.—C. H. DIBBERN.

Mine have stood nearly 100°. I do not know how much more they would stand.—C. C. MILLER.

I have known them to stand 115° with no harm, and I suppose that they could live in a higher temperature, but I do not know how high.—G. M. DOOLITTLE.

I do not know. They will stand immersion in syrup nearly boiling hot, and seem happy. You do not want to roast any, do you?—J. M. SHUCK.

I do not know. The temperature should always be kept below the melting point of the combs, else they will break down from the heat, and thus ruin the colony.—J. E. POND.

That depends upon how long they are subjected to the heat, upon their opportunity to get fresh air, and upon how long an existence you would require to call it "living."—R. L. TAYLOR.

The question is too indefinite to be answered directly. A temperature of 180°, in my solar wax-extractor will kill a bee in a twinkle; 160° will kill, but not instantly. I have never tested these matters as an experiment—I only answer as to what I have seen in a practical way. I am satisfied that bees suffer less of vitality when the temperature goes above 100° in the shade. My bees usually "dwindle" during an exceedingly hot spell in the latter part of the summer.—G. W. DEMAREE.

Natural yellow wax melts at from 142° to 145°, Fahr., but it can be molded by pressure at a temperature of about 100°. At the point where combs would melt, the bees become *useless*, and would die in the "general wreck" or ruin of the interior of the hive. They may endure a few more degrees of heat, and still show animation, and if that is the information desired by the querist, then we would say that the bees *may* endure about 150° "and live."—THE EDITOR.

The Best Method of Getting Increase.

Written for the American Bee Journal

Query 610.—1. I have 20 colonies of Italian bees in double-walled chaff hives, all strong and in splendid condition, with all the hives full of honey. I wish to increase them to 40 colonies during the coming season, and in order to get the most surplus honey will it be best to let them swarm, or divide them early in the spring, say about the last of April or the first of May? 2. Will it be to the best advantage to furnish them with queens, or let them rear their own queen-cells?—Illinois.

Let them swarm, and rear their own queens.—A. J. COOK.

1. Let them swarm. 2. Furnish the queens.—H. D. CUTTING.

1. Let them swarm. 2. Let them rear their own.—R. L. TAYLOR.

Rear queens early, and make swarms by dividing.—DADANT & SON.

1. Let them swarm. 2. I should prefer to furnish them with queens.—A. B. MASON.

I should let them swarm once each, letting the parent colony rear its own queen.—G. M. DOOLITTLE.

1. Allow them to swarm naturally, returning all second swarms. 2. Let them rear their own queens—unless you have some particular strain that you want to increase.—WILL M. BARNUM.

1. I would allow them to swarm naturally. If you conclude to divide, do it when the colonies are near the condition of swarming. 2. It will be best to furnish them with queens.—J. P. H. BROWN.

1. Let them swarm; natural swarms are the best, although there are times when it is well to make swarms by division. 2. If your bees are of a good strain, let them rear their own queen-cells.—MRS. L. HARRISON.

1. Knowing nothing of your locality or ability, I cannot answer your first question, but for myself, I should divide colonies. 2. Much depends. I should furnish fecundated queens, in my own apiary.—J. E. POND.

1. To divide early, would be bad policy. I would get them as strong as possible by swarming time, and let them swarm. 2. If divided, the queenless colony should be supplied with a queen or a queen-cell.—M. MAHIN.

First, in this locality, I should let them swarm, in which case they would attend to the matter of queening.—JAMES HEDDON.

Provide laying queens, and divide the colonies not later than May 1, if the weather is good. If further south than this locality, divide earlier; if further north, do it later. They may need feeding to get them to full strength by June 1.—J. M. SHUCK.

1. To divide them has many advantages over the natural-swarming system, and if judiciously managed, no doubt it will give you the best results. 2. Furnish them with queens.—J. M. HAMBAUGH.

If you desire any surplus honey, I should say let the bees swarm *once* naturally, and manage them on the Heddon plan. Should they not swarm, they may be divided later in the season, when the honey crop is about over. Do *not* divide them in the spring. In dividing, it is well to give the queenless part a queen, or queen-cell, from a colony that has swarmed.—C. H. DIBBERN.

1. I think that depends upon whether your principal honey-flow comes early or late in the season. If the latter, dividing might work well, if you can get two strong colonies ready for the harvest in place of one. I should not divide, however, until near the time for natural swarms. 2. You could let some of the colonies rear all the queen-cells that they naturally would, and utilize the best of these to supply others.—EUGENE SECOR.

1. It may not be pertinent to the question, but I think that it is a mistake to attempt to increase your bees to any greater extent than results from natural swarming, allowing no more than one *prime* swarm from any colony. You may make a big show by rapid increase of colonies, but "solid cash" will not materialize. 2. If you must *divide* your colonies, wait until swarming time. It pays best to give the divisions queens at once.—G. W. DEMAREE.

Without knowing anything of your locality, or the amount of your experience or ability to accomplish what you desire to do, it would probably be safer to advise you to let them swarm naturally, and let the old colonies rear their queens.—THE EDITOR.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble, and at the same time help to scatter apicultural knowledge and promote the welfare of our pursuit.

CORRESPONDENCE.

CANADA.

Report of the Ontario Bee-Keepers' Convention.

Written for the American Bee Journal

BY R. F. HOLTERMANN.

The annual meeting of the Ontario Bee-Keepers' Association was held at Owen Sound, Ont., in the Council Chamber, commencing at 2 p.m. on Jan. 8, 1889.

The annual meeting has not had a smaller attendance for at least eight years, and probably never. It must, however, not be considered that the association is losing ground—far from it—the membership for 1888 was 231; nor must it be charged that bee-keepers do not desire to attend, but the reasons probably were, the poor season of 1888, the locality, and the bad roads all over the country, making it difficult to get to railway stations.

President Martin Emigh, of Holbrook, occupied the chair. Among those present were, Messrs. Gemmell, R. E. Smith, A. Pickett, R. McKnight, S. Corneil, W. F. Clarke, F. H. Macpherson, J. Miller, Wm. Couse, R. F. Holtermann, D. Anguish and G. Barber.

After the roll call, and reading of the minutes, the reports of the Secretary, Treasurer, and others, were read and approved.

The Secretary, Wm. Couse, stated in his report that about 1,000 invitations had been sent out, and largely responded to by the bee-keepers.

R. McKnight, the Treasurer, reported about $450 on hand, $200 of which had been set aside to secure Langstroth's revised book for the members of 1887.

The auditors, J. Miller and R. F. Holtermann, reported that the books were audited, and found to be correct.

EVENING SESSION.

Mr. Emigh then read the President's annual address.

An essay was then read from Mr. S. T. Pettit, of Belmont, Ont., as follows, on

Priority of Location.

About two years ago, when this thought was presented at the annual meeting of the Ontario Bee-Keepers' Association, the principle seemed to be something of small value, and but little notice was taken of it. Not long after, however, Mr. James Heddon called attention to it, and wrote approvingly, but Mr. Jones thought that it was a case of "the survival of the fittest."

Soon after this, in 1887, a characteristic letter from the pen of Mr. R. McKnight was published, in which we find the following:

"There are some in the fraternity whose generosity would lead them to squeeze out the weak and the small. They would go still further and circumscribe operations in rural districts by a new force known as 'Priority of Locations'—root out big and little from towns and villages, and put the business in the hands of specialists.

"The new doctrine of priority of location is the most presumptuous of all the claims the monopolists amongst bee-keepers have yet hinted at. Such a doctrine is begotten in selfishness, and opposed to justice."

Who in the present age is bold enough to assert that Mr. McKnight is not an original and profound thinker? Listen, while I repeat the strikingly characteristic terms employed—"root out big and little," "the most presumptuous," "the monopolist," "begotten in selfishness and opposed to justice." But just how leaving a man to enjoy his chosen locality without the crowding of bees other than his own, will so operate as to "squeeze out the weak and the small," and "root out big and little from towns and villages," I confess inability to comprehend, and I suppose ordinary mortals will plod on just the same as though that composition had never been written.

"Amateur Expert" writes: "And having done so, proceed to walk into some of the abuses he (James Heddon) so loudly denounces, and then walk into him if he talks of priority of location, etc, and it would be all in good humor." Why, to be sure, "A. E.," that is the proper way to do things. Then "A. E." says, "don't you know that we are free traders and stout upholders of a fair field and no favors? or else how would the priority-of-location doctrine suit our Canadian brethren when they look for a share of our market?"

Replying I will state that I am willing to believe that "A. E." has not given the subject due thought, or else he would see that our purposing to assist in placing within the possible reach of England's millions of hungry and poor, who in all probability never in their lives have enjoyed the pleasure of eating so much as one pound of honey, is a very different thing altogether from squatting down by another already in the business, to the injury or disaster of both; the dissimilarity will be all the more conspicuous when we reflect that we have plenty of inviting unoccupied fields, and that England must look to the outside world for food, or perish. Plainly enough the two cases are not parallel, and not comparable.

Mr. W. F. Clarke says: "Priority of location is another matter which is attracting much attention among bee-keepers. It is proposed by some to pass a law securing to the first comer as a bee-keeper into a neighborhood, the exclusive ownership of the bee-forage within certain limits." Well, I must say that if such legislation has ever been proposed, or even hinted at, it has entirely escaped my notice. I cannot help thinking, however, that Mr. Clarke was drawing upon a much abused imagination when he wrote that statement. But the President, still believing in priority of location, in his annual address of a year ago, again called attention to it. Now permit me to give a few quotations to show that the principle has taken deep root in the better judgments of bee-keepers generally, the fruits of which will be sweet and refreshing to many in the business.

Mr. Allen Pringle says: As to who ought to engage in bee-keeping, and who may engage in it, these are questions which each individual has the natural right to decide for himself, so long as he keeps within both the moral and the civil law. When the latter excludes him from corporations, he has no right to violate it, and when the former excludes him from preoccupied ground, he has no moral right to violate that either.

From a dialogue between Prof. Cook and Dr. C. C. Miller, at a Chicago meeting of the North American Bee-Keepers' Society, I gather that Prof. Cook also believes in the principle.

Mr. D. A. Jones now not only concedes to others priority of location, but advocates it as well. He says: "To me it seems that the question of priority of location bothers some more than it need. There are those who make comparisons of bee-men and store-keepers, etc., but such comparison is not applicable." Then again he says: "With those points in view, no practical man will seek entrance to a section of country already comfortably occupied."

And now we may rejoice in the fact that priority of location, backed up by sound public opinion, "has come to stay" until the time shall come when in the march of progress on all sides, apiculture shall receive that attention from the people, and from Legislators, that its growing importance merits, and it shall be placed upon a legal, and therefore upon a more solid and satisfactory basis; when justice through wise legislation can be done to all the people; and even then the principle of "do unto others as you would that they should do unto you," will be of

service in the new order of things, as an outside guard to watch and ward off the operations of unprincipled parties who may be disposed to appropriate that which belongs to others.

And in conclusion I will say, that because I have enjoyed the privilege of collecting the nectar from my neighbors' fields, orchards and forests, for a dozen years and more, and that although during all these years I have done them good and not evil; that all this does not make me the owner of the nectar of future years—without a doubt in my mind it belongs to the owners of the soil, whose it is, and who have a right as a community, to control the disposal of it in a just and equitable manner, just as surely as they have the right to dispose of any other valuable product of the soil. But in the meantime let us all appreciate and rejoice in the security that the priority-of-location principle affords us. I am strongly impressed with the conviction that any bee-keeper who in the future shall introduce himself upon preoccupied ground, will realize that public opinion justly censures him.

S. T. PETTIT.

Mr. McKnight said that he regretted that Mr. Pettit was not present, and under the circumstances he would but briefly say that what he had written he had no reason to retract.

Mr. Corneil said that the essay, in his estimation, was all right to insert in a bee-paper, but not the kind of an essay that would be expected to be read before a convention.

Mr. Clarke said that he would only take Mr. Pettit's own essay to prove that the writer of it himself advocated legislation.

Mr. Holtermann, who read the essay, pointed out that in reference to Mr. Clarke, Mr. Pettit, in his essay, never said that he did not advocate legislation, only he did not advocate the kind that Mr. Clarke had said was proposed.

A motion was then made that a special general meeting be held of the Ontario Bee-Keepers' Association, at Brantford, during the time the International meets there, and that a delegation be sent to represent the Ontario Bee-Keepers' Association.

Mr. Holtermann asked if this was to be the annual meeting, and was told that it was not. Mr. H. then stated that Messrs. Anguish, Barber and himself were a deputation from Brant, to ask the Ontario Association to have their annual meeting at Brantford, at the same time as the International; that he, as the Secretary, could tell them that the reason the date of the annual meeting had not been fixed by the International, was because they wanted to meet the Ontario in any way possible; he knew the law demanded that the Ontario Association fix the date of their annual meeting at this meeting, but there was no reason why arrangements could not be made for both to meet at the same time.

Messrs. R. McKnight, W. F. Clarke, S. Corneil and F. H. Macpherson opposed having the annual meeting at the same time as the International, claiming that the business of the Ontario Bee-Keepers' Association could not be done properly. Mr. Holtermann claimed that then, as now, the directors could meet before and after the sessions, and they transacted the most of the business.

As he could not make a motion to fix the place of meeting, until the next day, according to the programme, he would move that the question be "tabled" until that time. Whereupon Messrs. McKnight and Clarke withdrew their motion until that time.

Discussions followed upon "Ventilation," the majority being in favor of ventilating hives and repositories.

In discussing the advisability of preventing bees from breeding early indoors when wintering, some were in favor of having them breed early, others not until after being taken out, opinions being pretty well divided. In wintering bees in clamps, some objected to moving the hives together, but advocated separate clamps for each hive.

SECOND DAY.

MORNING SESSION.

The convention was called to order, with President Emigh in the chair. The election of officers was then held, and resulted as follows: Rev. W. F. Clarke, President. Mr. Emigh, the President for 1888, who had refused to serve a second term for President, was elected Vice-President.

The directors of the various agricultural districts were elected as follows:

J. K. Darling, Almonte; M. B. Holmes, Delta; Allen Pringle, Selby; S. Corneil, Lindsay; Wm. Couse, Streetsville; A. Pickett, Nassagawaya; Will Ellis, St. Davids; D. Anguish, Mohawk; R. McKnight, Owen Sound; F. A. Gemmell, Stratford, and R. E. Smith, Tilberry Centre.

It was then decided to fix the place of meeting before electing auditors. After some more discussion, Belleville was selected for the next place of meeting (Brantford receiving 6 votes and Belleville 7), on the second Wednesday and Thursday of January, 1890.

It was decided that a special general meeting be held at Brantford, at the time the International meets there, the President, Vice-President and directors being appointed a delegation to represent this Association.

The election of auditors was then held. Mr. Macpherson stated that the Arts Act did not require the auditors to be members, and nominated Mr. Walbridge. Mr. Holtermann claimed that he must be a member. Mr. McKnight said not, and so did Mr. Corneil; and Mr. Walbridge was elected. Another, not a member, was nominated, when Mr. Holtermann again protested. An eminent lawyer, the Mayor of Owen Sound, who had just welcomed the Association, being present, the decision was left to him, Mr. McKnight jokingly remarking that there must be no "fee." The Mayor declared Mr. Holtermann to be correct. W. P. Taylor, of Fitzroy Harbor, and R. F. Holtermann were then appointed auditors.

Hive-Ventilation in Winter.

Mr. Corneil, in his essay, explained the action of the currents of atmosphere of various temperatures coming in contact. The temperature of the hive was generally about 59° or 60°, whilst the outside temperature in the repository was much lower, and that of the open air as in outside wintering, is even greater. This caused a constant change of air in the hive.

Mr. Corneil had two 2-quart pails—blacked so as to cause greater radiation—suspended in the hive, and by this means secured a higher temperature in the hive than that in the room where the experiments were conducted. A wick, ignited, was then suspended in the hive, filling it with a dense smoke. By this means the direction of the currents of atmosphere could readily be detected.

The experiments conducted by Mr. Corneil showed that the tendency of the currents of air, under the conditions named, is upwards. That if there be but one entrance, as in the ordinary ventilator, and the atmosphere has to enter and make its exit at one opening, the current does not come in at one side and go out at the other, but is divided horizontally, going in at the lower half, and coming out again at the upper. Again, that if the entrance is divided horizontally, by even a piece of paper only, it prevents friction between the two currents, and the circulation may be quite free; whilst if not so divided, the friction between the two currents almost stops the circulation with the ordinary entrance. For this reason an upright ventilator is better than one horizontal, if there be only one ventilator.

Mr. Corneil appeared to favor a rim being placed under the brood-chamber, and between it and the bottom-board. One ventilator, the front one,

should be at the top of the rim, the other in the rear, at the bottom of the rim; this allowed a gentle current of atmosphere to pass through the hive. The entrance, or ventilator, should be regulated by the strength of the colony, an average colony having the ventilator equal to about one square inch in size. If the bottom-boards were tight, the rim could be placed over the brood-chamber. The ventilators should always be placed at the ends of the frames.

Mr. Corneil, at the close of his essay, was plied with numerous questions, which showed the interest that the members took in the question.

Mr. Allen Pringle, of Selby, then read an essay, on

Bees for Pleasure and for Profit.

The number of persons who keep bees merely for the pleasure of the thing, is probably very small, compared with those who keep them for the profit that is in them. A few, however, actuated by the spirit of research, or by curiosity, or a love of natural history, or perhaps in quest of recreation and health, keep bees without the usual dollars-and-cents motive. I think that I will be quite safe in assuming that every member of the Ontario Bee-Keepers' Association, however much pleasure he may get from his bees, has, at the same time, his "weather-eye" open for the profit—be the same more or less.

Wherefore, I may, I think, dismiss this minority class of pleasure apiarists with this brief reference, throwing after them our very best wishes, if not our admiration, and turn attention briefly to bees for profit.

It appears to me that the bees-for-profit-man also gets a great deal of the pleasure, especially when the *profits* are large. There is one advantage he has over the other fellow. It is almost astonishing how pleasant nearly every kind of business (or no business) will become to a man when it "pans out" properly. This is human nature as it *is*—what it *ought* to be we will leave for those who come after us. I shall, therefore, very briefly consider the question of bees for profit.

Bee Keeping with other Business

In the first place, I think that bee-keeping pays best in connection with some other business. I would not care to advise any friend to go into the business of bee-keeping, as an exclusive means of support. The past few seasons have brought to light new and better conclusions on this subject. If, like Manitoba farms, and their wheat, we could raise so much honey that we could afford to go without any the next year, the case would be different. But as the profits of bee-culture, at best, are only say good, or in the fairly living line, the specialist with nothing else to fall back upon, will occasionally find himself coming "out of the little end of the horn," as he comes out of his fiscal year.

As to what kind of business may be profitably supplemented by bee-culture, that depends upon circumstances, and must be decided by each one for himself. The farmer naturally thinks that bee-keeping ought to be in association with farming or some branch of agriculture. So of the school-teacher, mechanic, and others. Although the unavoidable drawbacks to bee-keeping for profit are numerous enough and formidable enough, much, very much, as in everything else, depends upon the man. There are certain conditions of success in every business. Only in rare cases do people stumble upon profitable success. We must work for it, and the work must be well directed.

The bee-keeper who succeeds and makes the business pay, must work well, with his hands, and still better with his head. To come down from the general to the particular, he must have the right kind of bees in a good style of hive, and then must look after them as carefully and intelligently as he would after his stock, or even the children. What might be the best hive for somebody else, might not be the best hive for him, and the same of bees.

For lady bee-keepers and timid men I should recommend the Carniolans or Italians. In hives, the Jones or Langstroth for amateurs is easily handled. So long as the hive is a good movable-frame one, not so much depends upon it as upon the man, and strict attention to business.

The profits of bee-keeping are materially affected by the mechanical part of the business. To economize in this, the bee-keeper ought to make himself handy with tools, and get everything made and ready during the winter months when he has time.

Marketing the Honey.

The profits are also largely affected by the bee-keeper's method of marketing. He may have a good crop and fool it away, as I have seen people do more than once. He gets in a great hurry to sell it as soon as he gets it, and either consigns it to some unknown and irresponsible commission man, or unloads it upon his local market just for what it will bring. In either case the result, as to profit, is generally not profit, but *loss*.

I would say, be patient in marketing, and sell at home. As a rule, leave the commission man alone. When you have a surplus from the home market, send your sample ahead, make your bargain, and then ship according to agreement, C. O. D. When you cannot sell for cash (as also happens with excellent home customers) resort to *barter*—goods for goods—and these can always be used or turned to account some way.

I know of but one way to make bee-keeping pay, and that is to handle the bees and their products as they ought to be handled. As to how, in detail, both ought to be handled, each must learn for himself by observation, reflection, experience, books, bee-papers, etc. ALLEN PRINGLE.

The Hon. Charles Drury, Minister of Agriculture, was elected an honorary member. After some changes in the Constitution and By-Laws, the convention adjourned to meet at Belleville in 1890.

Brantford, Ont.

SWARMING OUT.

Cure for New Colonies Leaving the Hives, etc.

Written for the American Bee Journal
BY WILLIAM CROULEY.

What apiarist has not had trouble from this cause? I think that I am original in discovering a very simple remedy for it; at least I have not seen it in print. It is as follows:

As soon as I hive a swarm, I put a drone or queen trap at the entrance of the hive, and leave it for three days. I had several swarm out through the trap, but they came back faster than they went out, as soon as they discovered that the queen did not come out, and went to work in earnest, and did not try it again. The trap should reach clear across the front of the hive.

Preparing Bees for Cellar Wintering.

My bees are wintering finely. I never had them so quiet in the cellar as they are this winter. I never lost but one colony in the cellar, and that one starved last winter. I think that my plan of preparing them for the cellar is a good one, and as it may be beneficial to some of the fraternity, I will describe it:

My hive bottom-board is the same width as the hive, with a 2-inch rim on the under side, and 4 inches longer than the hive. I use the blank-strip super, the same size as the hive. I put a quilt in the bottom of the super, and fill it with sawdust, dry leaves or chaff, and put it on top of the hive.

There is a bee-space between the super and the top of the brood-frames.

When I put the bees into the cellar, I turn the bottom-board upside down, which leaves a 2-inch space below the frames; and as the bottom-board is longer than the hive, I can see the under surface of the frames, by holding a light in the right position; and looking under once a week, I can detect any unusual mortality.

It is a pleasure to go in the cellar when the temperature is below zero, and see the clusters of bees as large as the top of my head, some of them hanging 2 inches below the frames, and resting on the bottom-board. Very few dead bees have dropped down yet—I think that I could get them all into a quart measure, from 85 colonies.

Redwood Falls, Minn.

MAINE.

Proceedings of the Bee-Keepers' Convention.

Reported for the American Bee Journal
BY L. F. ABBOTT.

The ninth annual session of the Maine State Bee-Keepers' Association was held on Jan. 8, 9 and 10, 1889, at Brunswick. This meeting was designed to unite all the local societies in the State, in one grand convention. The Maine State Society is the oldest organization. Next is the Western State Society, formed some three or four years subsequently, and later the Maine Apicultural Society, organized three years ago, but which has done but little towards discussing the bee-question. Although the past season has been the poorest in the annals of bee-keeping in Maine, a fair representation was present at the opening session.

The opening discussion, set in motion by the President's address, turned mainly upon hives and the wintering problem.

Factors of Success in Bee-Keeping.

Rev. C. M. Herring, of Brunswick, who had success in bee-keeping, made some points in his address which will be of interest to note. He alluded to the unstable character of the enterprises in which men engage. Success and failure are common to all. In bee-culture, the failures are frequent, which should lead to the inquiry, where lies the road of success? He would say, first in the man. One should understand the nature of these insects, and so comprehend their wants. Second, another secret of success lies in the bee, and mainly in the blood. All bees, like all men, are not of equal value. As with horses, cows, sheep and swine, blood will tell. We find in all organic life that interbreeding of the same blood diminishes the vital forces; and also that continued crossing between the different races, improves the stock. It is a mistake to think that all bees are alike. Another factor of success lies in the hive—a hive of the right size and form, and made to protect from cold. The best requisite he would name for the hive is thick walls; next the cubic form, so that the bees can mass in close proximity to the stores. These two ideas he held firmly as a means of success.

The discussion of the points presented in the President's address called out quite diverse opinions. Mr. Greeley, of Clinton, took quite a strong ground against the cubic form of hives. Dr. Morton, of Bethel, seconded Mr. Greeley's views. The discussion revealed the fact that nearly all the bee-keepers were using the oblong frame of the Langstroth pattern. Mr. Reynolds, of Clinton, was of the opinion that chaff hives were superior to wooden walls. Mrs. Hinckley, of Bowdoinham, believed in protecting hives in winter. The practice is quite well established by placing bees in the cellar, as the safest place to winter.

Races of Bees.

Mr John Reynolds, of Clinton, gave his ideas as to races of bees. He thought that each one should decide for himself the value of many things in use in bee-keeping, and in regard to different races of bees. In his opinion, climate creates races of bees; races succumb to climate. Maine's climate creates a dark race of bees; the climate of Italy and the Isle of Cyprus originated a yellow race of bees. Different races are all equally good, perhaps, in their own locality. In his opinion, whoever attempts to keep all races of bees in one locality, will not succeed.

An essay by Mr. I. F. Plummer, of Augusta, contained some points and suggestions.

Local Bee-Associations.

Mrs. W. M. Hinckley, of Bowdoinham, sent an essay, mainly devoted to suggestions concerning the work of the associations. She thought that every town where bees are kept should have a regularly organized society of bee-keepers, holding meetings and comparing notes at least twice a year. There should be one central State society, composed of the Presidents and Secretaries, or of specially elected delegates from each town in the State, regularly incorporated, with power to elect its own officers from members as furnished by the town societies, and to transact business as its necessities demanded.

The State society should select careful, intelligent men in every part of the State to superintend the careful testing of the different races of bees, the different methods of handling, feeding and swarming; the various hives before the public, especially those that have secured such a foothold in the public mind as to allow them to claim standard merit; all the different frames and tools and methods of manipulation in use, and who shall clearly and faithfully report their observations to the Secretary of the State society at the close of each season's work.

The Home Market for Honey.

One of the questions discussed was, "Creating a Home Market." Mrs. Crockett, of Foxcroft, sent an essay which was read by the Secretary, giving her views upon the subject.

Mrs. Crockett spoke of the difficulty of getting the idea established that honey is a staple article of diet, rather than a luxury, and cheaper than berries and canned fruit. One thing that will go far to make a market, is to convince the consumers that the honey we put upon the market is absolutely pure, and hence, a healthy article of diet.

There are confused ideas among customers regarding extracted honey, many believing it to be impure. Hence, we drop the term and call the product comb and "strained" honey, the latter term being a familiar one years ago when bees were kept in box-hives.

The essayist preferred to sell honey direct to consumers rather than sell in the wholesale market.

The profit the trade puts on, above the wholesale cost, brings the product too high, so that the masses cannot afford to purchase it; still if we sell direct to the consumer, and furnish those who prefer comb honey with the best quality at remunerative rates, we shall find plenty to take our second quality for one or two cents less per pound. It pays to have the sections clean and nice, and the clear honey put up in attractive form.

The Feeding of Bees.

How to feed bees in the fall economically and with the best advantage to the colony, was the subject of some discussion. Mr. Greeley gave his plan of late feeding, by turning thick sugar syrup, slightly warmed, directly into the combs. Colonies so fed late in October capped the combs so treated, and he expected them to winter well on the same.

Feeding in the cellar with frames of sealed honey might be accomplished

at any time, by moving the central frames on which the bees were clustered, and placing frames of honey near the bees.

Destroying Moth-Worms.

Moth-worms were frequently found in hives, and in box-hives used to do much damage, but with the frame hive and Italian bees, moth-larvæ were of little account. It is stated that the freezing of eggs or larvæ destroys their vitality.

It was thought best not to extract the combs when working for comb honey.

It is considered an advantage to shave brood-combs to $\frac{7}{8}$ of an inch when putting on surplus cases, thus uncapping the sealed honey at the tops of the frames, and letting the cappings and honey run down between the frames. Then space the frames to a bee-space—$\frac{5}{8}$ inch —and place on the sections.

Our best honey producers used the queen-excluding zinc honey-boards, thereby obviating the trouble often experienced, of brood in the sections.

Well constructed chaff hives were recommended as preferable to single-walled hives, especially for out-door wintering.

Races of bees were a constant theme of discussion among bee-men of the country, but the blacks and the Italians were still the chief races for profit.

The whole machinery of bee-keeping is complicated. It takes years of practice to become conversant with the various ways of manipulating this wonderful little bee.

Dividing Colonies.

Dividing colonies may be profitably and readily practiced after one knows how. It needs practice in handling bees, and familiarity with their ways, to successfully accomplish profitable dividing. It may be done by dividing a strong colony and, finding which section is queenless, give it a laying queen, or else allow the bees to rear a queen.

Another method, involving the same principle, is that of forming nuclei colonies, by putting a frame of brood in a hive, give it a laying queen, then build up from different hives by giving the young colony frames of brood.

Mr. Pike, of Livermore Falls, gave a method of shaking from the frames of a strong colony bees sufficient, into a box made for the purpose, to make a colony—bees from different hives could be mixed in this way, care being used in all cases, not to shake out the queen with the bees.

Keep this mass of bees 24 hours, run a laying queen amongst them, and hive the bees in the ordinary way, and the colony would go to work with the bee's accustomed alacrity.

The officers chosen were: President, Rev. C. M. Herring, of Brunswick; Secretary, Dr. J. A. Morton, of Bethel; Treasurer, W. H. Norton, of Skowhegan; with one Vice-President from each county.

Lewiston, Maine.

WINTER SONG.

Summer's joys are o'er;
Flowerets bloom no more,
Wintry winds are sweeping;
Through the snow-drifts peeping,
Cheerful evergreen
Rarely now is seen.

Now no plumed throng
Charms the woods with song;
Ice-bound trees are glittering;
Merry snow-birds, twittering,
Fondly strive to cheer
Scenes so cold and drear.

Winter, still I see
Many charms in thee—
Love thy chilly greeting,
Snow-storms fiercely beating,
And the dear delights
Of the long, long nights.

HONEY-BOARDS.

The Invention of the Wood-Zinc Honey-Board.

Written for the American Bee Journal

BY DR. G. L. TINKER.

In the report of the late Michigan Convention, on page 23, Mr. Heddon objects to my claiming the wood-zinc honey-board! It has been a surprise to me from the first, that he should, on so slight a pretext, claim this invention as his own, and seek to deprive me of the credit that rightfully belongs to me as the original inventor.

It seems that Mr. Heddon had tacked strips of perforated-zinc on his slatted honey-board, and so used them, but had not conceived the idea of placing the strips in saw-kerfs in the edges of the slats till he saw a wood-zinc honey-board of my construction at the Kalamazoo State Fair, in September, 1885. Yet he now says it will probably never be known who was the prior inventor! Mr. H. has assumed that tacking on the strips was equivalent to placing them in saw-kerfs. If he really thought so, why does he not use the strips now as he did in the first place?

But he was free to state at the Fair (of which I have reliable proof) that my wood-zinc honey-board was a "new thing." Had it not been, he would have stated there and then, that he had used the perforated-zinc in the same way. Instead of that, he said nothing until several months after, when he set up his first claim as its original inventor!

Mr. Heddon admits that I *constructed* the first one (he having simply the idea), and first published it, which should settle the matter for all time. But the "idea" he had, was simply tacking on the strips!

The wood-zinc honey-board is an improvement of the slatted honey-board. The *first* and *original* honey-board had auger-holes or slots to correspond with openings in the honey-boxes that were placed upon it. Father Langstroth was the well-known inventor, and he possessed the genius to create an original idea. Mr. Heddon desires to be thought an original inventor, but he has credit only for a keen perceptive faculty, for all of his "inventions" have been based upon original ideas already advanced by others.

The honey-board being invented, it was natural that many modifications of it should follow, and the slat honey-board was one of them. Thousands of them were in use in this country before Mr. Heddon ever wrote a line on the subject. Even his identical break-joint sink honey-board (see *Gleanings*, Vol. XIII, page 173) had been invented and in use for many years before Mr. Heddon wrote of it. But he was quick to perceive that it could be made a good thing, and he deserves all the credit that attaches to it as a modification of the Langstroth; for he introduced it to the public, and first made known its general value in our modern methods, and takes just pride in having it called "the Heddon honey-board."

Now I have invented the wood-zinc honey-board, giving to the original slat honey-board a distinctly new function. I have since added the essential features of the Heddon honey-board, but Mr. Heddon "objects" to my advertising it as "Dr. Tinker's wood-zinc honey-board," and would deprive me of a right which he is free to take of Father Langstroth, and other predecessors!

Again, Mr. Heddon modified the Moore crate, and called it the "Heddon case," and would be vexed if any one dared to question his right to so call it. Shall I therefore forego a privilege he is free to take and respect his "objection" before the Michigan Convention; because he has an invalid patent on the old slatted honey-board, which, not even in one of its features, was he the original inventor? Certainly not!

I regret that Mr. Heddon should not want to use one of my inventions without laying some sort of claim to it. It is public property, and any one has a right to manufacture and use it, ex-

cept on Mr. Heddon's divisible brood-chamber.

My purpose from the first was, that it should be free to all bee-keepers to make and use. I afterwards sought to control its general manufacture by a patent, and in a pending application of Mr. W. S. Kline and myself, laid claim to it, which was duly allowed. In assigning this claim, the Patent Office decided it a "misjoinder," and it had to be cancelled. It was learned subsequently that a patent, if obtained, would be invalid, owing to certain decisions of United States courts that were unknown to me. Hence, no further action was taken or desired. It is sufficient to know that it was a patentable invention, and that I could yet obtain a valid patent, if I had not made the invention public, as stated by Mr. Heddon. I have suffered no loss in the matter, and now only desire the credit that clearly belongs to me; and I shall insist, that if this honey-board is to be called anything else than a wood-zinc honey-board, it shall be designated as "Dr. Tinker's."

In opposing the use of two-rowed zinc in my honey-board, Mr. Heddon says—"great and expensive mistakes are made regarding this point." But should he make ten times the number of tests with his bees to prove his position, it would not help the matter a particle. The general facts on this point are *exactly as I have stated.* His bees are mainly blacks and hybrids, and it is well-known that these bees will go through small auger-holes, and store honey, when Italians will not, as a rule. So Mr. Heddon's tests in the matter are not worth a fig. While his bees may work fairly well through a few queen-excluding holes in his honey-boards, mine will not; and nine out of ten of all the colonies in this country will not!

Again, two-rowed zincs used in my honey-boards practically opens up the way to a super of open-side sections, or to an extracting super, so perfectly that it is like placing an empty box on the hive, as regards giving room to prevent swarming, and the result is *the same.*

Now I will be kind enough to tell Mr. Heddon that one of my honey-boards used on one division of his hive will almost entirely overcome the tendency to swarm out of such contracted quarters. Some of the bee-keepers using his hive have had to re-hive swarms from five to six times before they would stay; and in a large apiary the annoyance has been a serious matter, requiring the use of a queen-trap before every young swarm. One division of his hive is too small, and the whole brood-chamber is too large for a swarm, but if those who have his hives will use my honey-boards, they will succeed far better.

I am tenacious of the point that the zinc strips should be let into the slats nearly up to the rows of perforations, so that the bees can get a ready foothold on the wood, and get through the zinc without a struggle. While solid sheets of perforated zinc are not a failure, still they are not equal to my wood-zinc honey-board, and can never be made the equal.

Storifying Hives.

As to the use of the English word "storify" instead of the word "tier," I consider it the more elegant and expressive term. I desire no credit for its original use. Our English brethren have long used it synonymously with our use of the word "tier." I have never applied the word to the management of the Heddon hive as alleged. Not even in one instance did I operate the Heddon hives I had, on the plan given in my new management of bees.

I supposed Mr. Heddon knew that my apiary had been run for years for experimental purposes, and that I had many kinds of hives in use. The new management is to be credited to the invention of the wood-zinc honey-board.

New Philadelphia, O.

[We cannot afford space to unimportant disputes where nothing is at stake but personal glory. Messrs. Heddon and Tinker have each presented his side of the controversy, by one article—*now let that suffice.*

This dispute concerning the "priority of invention" may be settled amicably by simply calling it "the wood-zinc honey-board," omitting any personal name.—ED.]

VERMONT.

Report of the Vermont Bee-Keepers' Convention.

Written for the American Bee Journal
BY J. H. LARRABEE.

The annual convention of the Vermont State Bee-Keepers' Association was held in the Town Hall at Middlebury, Vt., on Tuesday, Jan. 15, 1889.

At 10 a.m. the convention was called to order, with President Holmes in the chair. After routine business, the first subject of interest discussed was,

Wintering of Bees in Special Repositories.

The discussion was led by J. E. Crane, who had for many years wintered hundreds of colonies out-of-doors. During the past two or three years he had experimented quite largely with cellar wintering, and at the present time he has about 150 colonies in a special repository under his residence. He had no special means of ventilation in the repository, except a pipe connecting with the chimney. The cellar was very dry. When first put in, the bees were the most quiet at a temperature of from 50° to 55°, and in some cases even at 60°. Towards spring, however, the temperature should be lowered, or early breeding and uneasiness would result.

Mr. C. had placed his bees in the cellar early, and not removed them until natural pollen could be obtained, even six months confinement proving safe, if the bees are quiet. He had been very agreeably surprised in the results obtained, as the bees wintered in-doors had compared favorably in results obtained with the bees of his other apiaries wintered in chaff packing.

The above came as a revelation to the most of those present, as only some five or six wintered their bees in cellars. Much interest was manifested, and many questions asked, in reply to some of which Mr. Crane stated, that he ventilated each hive by raising the cover ⅛ of an inch at one end; that the consumption of honey per colony in the cellar was less than out-doors, but he could not state the saving in honey to the bee-keeper, as much honey was consumed in the spring.

Next followed reports of winter losses for the winter of 1887–88, which showed that the losses were heavier than usual, some of our best bee-men reporting from 10 to 20 per cent., and some (notably Mr. F. H. Walker, of Manchester, who lost 80 colonies out of 167) were somewhat discouraged in consequence of it. Sympathy was not lacking.

AFTERNOON SESSION.

At the opening of the afternoon session, a new Constitution was presented, discussed and adopted. It is hoped that this Constitution will broaden the field of labor of the Society, and promote its usefulness. All members under the old Constitution become members of the "new," by the act of signing it.

The following Board of Officers were then elected:

President, R. H. Holmes, of Shoreham; Vice-Presidents, one from each county represented, viz: Addison county, J. E. Crane, of Middlebury; Bennington, F. H. Walker, Manchester; Chittenden, Geo. Beecher, of Essex; Caledonia, J. D. Goodrich, of East Hardwick; Franklin, B.P.Greene, of St. Albans; Lamoille, J. W. Smith,

of Stowe; Orange, M. F. Cram, of Braintree; Orleans, A. J. Albee, of Derby; Rutland, H. L. Leonard, of Brandon; Washington, D. S. Hall, of Lower Cabot. Secretary and Treasurer, J. H. Larrabee, of Larrabee's Point.

Then followed a very valuable essay by Mr. V. N. Forbes, of West Haven, on

Bee-Pasturage.

Alsike clover was the plant that Mr. Forbes most recommended, and had obtained satisfastory results therefrom. That his assertions were founded upon experience, was proved by the fact that during the past year he had furnished 1,000 pounds of Alsike clover to his neighbors. It had proved profitable both to them and to him. He bought at wholesale, and sold at a slight sacrifice.

The Spraying of Fruit Trees.

In the discussion which followed, Prof. Seeley, of Middlebury College, who was present, was asked his opinion of the results upon bees produced by the spraying of fruit trees with poisons. He thought that no bad effects would ensue in any case, but suggested that the bee-keeper should hint to fruit-men, that the best time to spray fruit was after the blossoms had fallen, and supported the assertion by facts.

Mrs. E. S. Brainerd, of Orwell, next read an essay on,

Marketing of Honey by Small Producers.

She dealt direct with consumers, and furnished only a first-class article. She is entirely independent of commission men.

The President remarked that we should not condemn the commission men too hastily. He had visited the market last fall, and had his eyes opened with regard to the shipping and handling of honey in Boston.

The Bee-Keepers' Union.

Extracts from reports showing the object and uses of the "Bee-Keepers' Union," were read by Miss Douglass, of Shoreham.

Mr. Manum stated that he had been a member since its formation, and he urged its claims very strongly. It is hoped that Vermont bee-keepers will avail themselves of its privileges, especially since an act was introduced in the last Vermont Legislature, prohibiting the keeping of bees within 40 rods of the highway. However, this Bill was promptly killed.

The Chapman Honey-Plant.

Mr. Manum, who was one of the committee appointed some two years ago by the National Bee-Keepers' Society, to report with regard to the "Chapman honey-plant," said with regard to it, that although it furnished honey bountifully, he did not believe that it paid to raise it exclusively for honey. The seed he knew to be good for poultry, and if an oil could be pressed from it, and the residue used in the manufacture of quinine, so as to pay for cultivation, he should esteem it highly for the bees.

A letter was then read by the Secretary, from Mrs. L. Harrison, in behalf of the Illinois bee-keepers, sending words of encouragement and cheer so sadly needed. The Secretary was then instructed to send the thanks and sympathy of the Association to our fellow bee-keepers of Illinois.

EVENING SESSION.

The evening session was very interesting, and it is much to be regretted that many of the members were obliged to return home before evening.

A discussion was opened by President Holmes, on

Prevention of Undesirable Increase of Colonies.

There are, said Mr. Holmes, three classes of bee-keepers who may desire to prevent increase, viz: 1. The specialist, who has bees enough to occupy his whole time. 2. The novice, who keeps a few bees for the honey and pleasure of it, and cannot allow them to interfere with his business. 3. Box-hive bee-keepers.

The best way for the box-hive beeman to prevent increase, does not concern us. The novice, who keeps a few bees may prevent increase by doubling up swarms, as they issue, thus strengthening the weak, and increasing the honey crop.

The best way for the specialist to prevent increase, is a mooted point. However, the speaker had been very successful by removing the queens, keeping all queens young, and by keeping the bees at work. In removing queens he saved the best ones.

Eight or nine days after the first swarm issues, he removes the queen-cells from the parent colony, and introduces a young laying queen, on or after, 13 days from the time the first swarm issued.

From the discussion which ensued, it was plainly evident that upon this subject our bee-keepers were fully abreast of the times.

Ancient and Modern Apiculture.

Then followed an essay by Miss G. M. Wolcott, on "An Amateur's Observations upon Ancient and Modern Apiculture," in which she recounted some of the amusing incidents which attended her first experiences with the bees. By the way, we learn that Miss Wolcott intends soon to take charge of her own apiary of 150 colonies.

J. H. Larrabee read an essay on "English Bee-Keeping."

The session was well ended by an eloquent and interesting address by Mr. Crane, on "The Production of Comb Honey."

The convention then adjourned to meet next year, at the time and place appointed by the Executive Committee.

J. H. LARRABEE, *Sec.*

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Feb. 6.—Northeastern Michigan, at Flint, Mich.
W. Z. Hatchinson, Sec., Flint, Mich.

Feb. 7.—Wisconsin State, at Madison, Wis.
C. A. Hatch, Pres., Ithaca, Wis.

May 1, 2.—Texas State, at Greenville, Tex.
G. A. Wilson, Sec., McKinney, Tex.

May 4.—Susquehanna County, at Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Wintering all Right.—S. A. & M. A. Goodale, Clear Creek, Ind., on Jan. 17, 1889, write as follows:

In the spring of 1888 we had 21 colonies of bees in good condition. All increase was made by natural swarming. We sold 5 colonies, and put 28 colonies into winter quarters in the fall. We secured 900 pounds of extracted honey, mostly from poplar bloom. The golden-rod and asters supplied abundance of stores for wintering, besides a small surplus. The bees "kept themselves" throughout the summer, and gathered their winter supply of food. This is more than most stock can do. Bees had a good flight Jan. 3, and seem to be wintering "all right."

Good Prospects.—A. M. Rhodes, Bethany, Ills., on Jan. 19, 1889, says:

To say that I appreciate the AMERICAN BEE JOURNAL, does not express my feelings. Bees, as a rule, are in good condition. The prospects for bee-keepers are good.

Importance of Reading Bee-Papers.—Henry A. Hyle, Redwood, N. Y., writes as follows:

My neighbor has kept bees for eight years, and takes no bee-paper. He is a well-to do, retired farmer. He had 16 colonies of bees, and lost nearly all through carelessness. He had a strong colony of Italians in a chaff hive, but neglected to put them in condition for winter, until too late—Nov. 29. He came to me, saying that his Italians were dead, and requested me to examine them and ascertain the cause of their death. I found that he had left the poor bees on ten frames, without any cover whatever, only the top or cover of the hive. They had plenty of honey, but had huddled in one corner, and

froze to death. The entrance was left wide open, snow had blown in and melted, leaving water on the bottom-board. A piece of old carpet, covered over them on the frames to retain their heat, would have saved them. Near by was a weak colony in a single-walled hive, in one story; they were found in good condition, covered closely over the frames. By not taking a bee-paper, he lost bees enough in one season to pay for a bee-paper during his lifetime. When he gets into trouble, he comes to me for information. There was no surplus honey here last year.

Results of the Season.—Mr. C. A. Goodell, Mankato, Minn., on Jan. 15, 1889, writes:

I commenced the spring of 1888 with 5 colonies of bees, and increased them to 10 colonies. I cannot complain of my bees, for I took 350 pounds of comb honey, last fall, from 11 colonies. The bees are wintering nicely in the cellar. My neighbor and I found 8 bee trees last fall. We cut one last November, on a warm day, and I saved the bees, by putting them into a hive with plenty of stores, and they are wintering nicely. I like the BEE JOURNAL better every week.

Mild and Dry Winter.—Mr. T. N. Marquis, Wilford, Ills., on Jan. 13, 1889, says:

Bees seem to be all right in my cellar yet. This has been an unusually mild, dry winter here. I am in hopes that I will get a crop of honey in 1889, not having had a crop in four years.

Bees Under the House.—Mr. J. S. Willard, Bedford, Iowa, on Jan. 19, 1889, says:

The weather has been very mild here all winter. I have nearly all of my bees in the cellar under the house. It is warm there for them, I think. It is from 42° to 48° most of the time, and 50° or more at times. We keep the temperature down by opening the inside door. I fear that some of them will fly every once in a while when I am in there. Everything about the hives looks dry and nice. I have 36 colonies in the cellar, and 5 out-doors. Last summer we got half a crop, and the two seasons before we had hardly half a crop altogether.

Good Report for 1888.—Vincent Quinn, Penn Yan, N. Y., on Jan. 19, 1889, writes:

I thought I would send in my report. From my best colony I got 150 pounds of honey; two second best, 90 pounds each; and two more, 28 pounds each. I did not keep account of the whole of them, but my bees beat my father's last season. I have 16 colonies in the cellar, and all are doing well so far. They are all Italians.

Not Much Winter.—E. Drane & Son, Eminence, Ky., on Jan. 22, 1889, write:

We have not had much winter here yet. The mercury was down to 20° above zero one morning Christmas week, and was at 26° this morning, which are the coldest days we have had. The earth is covered with young white clover, and we hope to get some honey when it blooms. We got no surplus the past year, and had to feed 500 pounds of sugar for winter stores. After doubling up weak colonies, we have 104 colonies left.

Shiny Bees.—C. W. Phelps, Binghamton, N. Y., on Jan. 21, 1889, writes:

I had a colony of bees that had a peculiar disease (if it may be called that) last July. Some of the bees would look shiny, and fly around the entrance much the same as robber bees before alighting, when the other bees would kill them after a struggle, or they would get away. At first glance I thought that they were robbers, but as I have kept bees for a good many years, I soon discovered the difference, and I positively know that the bees belong to the hive where they were killed. This killing was kept up all the latter part of the summer, and until winter, after cold, frosty weather sets in; and after the bees were confined in the hive for several days at a time, I would find quite a number of dead ones, or looking at the bottom of the cluster, and on the bottom-board, I would find the bees killing others. After it got cold enough so that they could not fly for several weeks at a time, I found a quart or two of dead ones. Did you ever see or hear of anything of the kind? I think that the bees were *all* killed, but I am not sure. I carried the bees into the cellar, and took the comb and honey away from them, put them into a new hive, and gave them sugar syrup, and the killing stopped after a little while. Of course I do not expect to winter them, but I think that the trouble was in the honey. I have read considerable, but I have never heard or read of a case like this.

[In the fall, shiny bees are often seen in the apiary. They are old bees, and are killed off to save the honey.—ED.]

Carrying in Pollen.—H. S. Gravener, Cypress Mills, Tex., on Jan. 19, says:

We have been busy on the range. Bees carried in pollen on Jan. 15—a little earlier than usual. They did fairly well the past season, a little over 100 pounds of honey per colony.

Expects a Bountiful Harvest.—J. G. Norton, Macomb, Ills., on Jan. 23, 1889, says:

The bee-business has been a poor investment in this part of the State for the last three years; but bees are wintering well, and are in fine condition; so from the present propects, I look for a bountiful honey harvest for 1889.

Wintering Finely.—H. M. Seeley, Harford, Pa., on Jan. 19, 1889, says:

I see by the reports of some that their bees are out nearly every day; here they were out three days at Christmas time, and not again until Jan. 17, when the temperature went up to 60° in the shade, and they had a fine flight. All seem to be wintering as finely as need be.

Bees Wintering Well.—John H Larrabee, Larrabee's Point, Vt., on Jan. 21, 1889, says:

Bees here had a splendid flight on Jan. 18, and showed that they were wintering well. We have no snow, and the mercury has only reached zero twice. We look forward to next year with hope for a better season.

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

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Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

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Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Honey and Beeswax Market.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 17@18c.; best 2-lbs., 16@17c. Extracted, 8@9c. The trade is dull.
Jan. 19. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 16@18c. Supply is not large, but about equal to the demand. Market will be bare of comb honey long before the new crop is ready.
BEESWAX.—22@23c.
Jan. 18. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 16@17c.; 2-lbs., 14@15c. Good dark 1-lbs., 13@14c.; 2-lbs., 12@13c. Buckwheat 1-lbs., 13@14c.; 2-lbs., 11@11½c.—Extracted, 6½@8½c., depending upon quality and style of package. Market dull and stock sells slowly.
BEESWAX.—22c.
Jan. 24. S. T. FISH & CO., 189 S. Water St.

ST. LOUIS.

HONEY.—Choice white clover comb, 13@15c.; fair 11@12c.; dark, 8@10c. Extracted, dark, in barrels, 5@5½c; choice, 5½@6c.; in cans, 6@7½c. Market is quiet but steady.
BEESWAX.—20c. for prime.
Jan. 17. D. G. TUTT & CO., Commercial St.

CHICAGO.

HONEY.—Best 1-lbs., 17@18c. Extracted, 7@9c. for best quality, according to body, flavor and style of package. Trade is limited to local consumption. Off grades of comb honey are slow at lower figures than given above. But few will buy dark comb.
BEESWAX,—22c. R. A. BURNETT,
Jan. 17. 161 South Water St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 15@16c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c.; fair 1-lbs., 12@14c. Extracted, white, in kegs and ½-barrels, 8½@9c.; amber in same, 7½@8c.; in pails and tin, white, 9½@10c.; in barrels and ½-barrels, dark, 5½@6c. Market dull. The very best sells slowly, and inferior qualities are neglected very much. Damaged, broken and leaky comb honey not wanted.
BEESWAX.—22@23c.
Jan. 10. A. V. BISHOP, 142 W. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@16c. Demand slow, with a smaller supply than ever at this season for the past 10 years.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Jan. 9. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—White 1-lbs., 16c.; fall, 14c.; California 1-lbs. 16c.; white 2-lbs., 14c.; extra 2-lbs., 13c. Extracted, white California, 8c.; amber, 7c. Market dull.
BEESWAX.—20@22c.
Jan. 22. CLEMONS, CLOON & CO., cor 4th & Walnut.

KANSAS CITY.

HONEY.—Choice 1-pounds, 15@18c.; dark 1-lbs. 12c.; 2-lbs., 14c.; dark, 11c. White extracted in 60-lb. cans, 8c.; amber, 7c.; in barrels and kegs, 5@8c. Demand good, prices steady, and stock large.
BEESWAX.—None in market.
Jan. 4. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—White, in 1-lb. sections, 15@16c. Extracted, 9@10c.
BEESWAX.—20c.
Jan. 1. J. M. CLARK & CO., 1409 Fifteenth St.

NEW YORK.

HONEY.—We quote: Fancy white 1-lbs., 14@15c.; 2-lbs., 12c Fair white 1-lbs., 14@15c.; 2-lbs., 10 to 11c. Buckwheat 1-lbs, 10@11c.; 2-lbs., 9@10c. Extracted, white, 7½@8c.; dark buckwheat, 6@6½c. which is in good demand. Market dull, except for extracted buckwheat; for all other kinds it is quiet, owing to unseasonable weather, we believe.
HILDRETH BROS. & SEGELKEN,
Jan. 10. 28 & 30 W. Broadway, near Duane St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½ cents; amber, 6c. Comb, white 1-lbs., 13@14c.; 2-lbs., 13c.; amber, 10@11c. Demand is of a jobbing nature, and arrivals are small.
BEESWAX.—19@20c.
SCHACHT, LEMCKE & STEINER,
Jan. 8. 16 & 18 Drumm St.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

Advertisements.

FOR SALE.

ON account of poor health, I offer my place for sale, situated at Verona, N. Y., near post-office, churches, school and the Central Railroad. It consists of 10 acres of good land, good buildings, apple orchard and other fruits—also 90 Colonies of Bees, and conveniences to run an apiary. Would be glad to sell all together. Can have time on part of purchase money, if desired. For further information, inquire on the premises. **R. BACON,**
5A4t VERONA, Oneida Co., N. Y.
Mention the American Bee Journal.

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WE CAN now furnish the **Van Deusen** EXTRA-THIN Flat-Bottom FOUNDATION put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box. **12 ft.** to the lb.
☞ The above is a **special offer,** and is a **Bargain** to all who can use that quantity.
All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.
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Should send for my circular. It describes the best Hives, the best Cases, the best Feeders and the best Methods. Address,
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Mention the American Bee Journal.

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Beeswax.—We will pay **20 cents** per pound, in Cash, for Yellow Beeswax, delivered here; or **22 cts.** per lb. in exchange for Bee-Keepers' Supplies.
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We manufacture Bee-Keepers' supplies of all kinds, *best quality at lowest prices.* Hives, Sections, Foundation, Extractors, Smokers, Crates, Veils, Feeders, Clover Seeds, Buckwheat, etc. Imported Italian Queens. Queens and Bees. Sample Copy of our Bee Journal, **"The Western Bee-Keeper,"** and **latest Catalogue** mailed **Free** to Bee-Keepers. Address
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Friends, If you are in any way interested in **BEES or HONEY** we will with pleasure send a sample copy of the **SEMI-MONTHLY GLEANINGS IN BEE-CULTURE,** with a descriptive price-list of latest improvements in **Hives, Honey-Extractors, Comb Foundation, Section Honey-Boxes,** all books and journals, and everything pertaining to Bee-Culture. *Nothing Patented.* Simply send your address *plainly written,* to **A. I. ROOT, Medina, O.**
Mention the American Bee Journal.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Feb. 9, 1889. No. 6.

EDITORIAL BUZZINGS.

Music when soft voices die
Vibrates in the memory!
Odors when sweet violets sicken
Live within the seuse they quicken.

Life is Not so Short but that there is always time for courtesy.

The Mild Weather of December and January had its effects on the maples of New England. In Maiue and Vermont, and other sections, trees yielded a good flow of sap, and sugar was made in mid-winter, a very unusual occurrence. So says an exchange.

Lizzie Cotton's advertisement has been refused by the Orange Judd *Farmer*. She sent it to the Editor with a small book describing her controllable bee-hive and methods with bees, which she claims will make those who use them rich. She is *modest*, if selling a book worth at most ten cents, and a hive not worth two dollars, for $12.00 can be called modesty!

United Efforts.—Mr. William Stolley, of Graud Island, Nebr., on Jan. 26, 1889, when sending his dues to the National Bee-Keepers' Union, remarks thus:

The bee keepers, as a class, are very much like the farmers; they seem not to comprehend the great advantages of combining for their own good and protection, else the members of the Bee Keepers' Union would have been counted by the thousands long ago. Being absent from home when the officers were elected, I did and could not vote, but I am well pleased with the officers elected.

It is too true, Brother Stolley, but they seem to be asleep—apathy reigns supreme.

NeuerSchweizerBienenfreund is the title of a new monthly Swiss bee-paper, by U. Studer, Niederried, Switzerland, the second number of which is on our desk. This makes the third periodical on bee-keeping now being published in our small sister Republic, where one is "an abundance."

It seems a strange infatuation, that leads to such a multiplication of bee-periodicals. Where one good bee-paper could live and be a real benefit to the pursuit, two or three will spring up and none of them be able to make their influence *felt*, because of their weakness, by reason of the splitting up of the subscription patronage. What would support one would starve three.

This is a *calamity* which is threatened in every bee-keeping country. The power for good and influence for right, which one strong and vigorous publication would maintain, is frittered away by reason of an unhealthy increase of bee-papers. It behooves all to look this matter squarely in the face, and refrain from lending their influence to an increase in this line, which is detrimental to the entire craft.

Until a few years ago England had no bee-paper—now she has three; two too many! A quarter of a century ago in America there was but one (the AMERICAN BEE JOURNAL), now their names are legion, and as a result some of them are sick and dying; others are only half supported, and the *influence* of all, by reason of the multiplication, is much *impaired!*

All this is the result of the suicidal mania for publishing a bee-paper; and if it is not soon stopped, the time will come when many of them will die, and their owners will be poorer but wiser men.

It is quite time to call for *a halt* on such reckless increase—which is just as detrimental in the field of literature as it is in the apiary. In both cases, too much increase will destroy the business, and ruin those who should be benefited by the investment.

Cleaning Propolis from Sections is quite essential, so as to make them attractive when put upon the market. This is usually done by scraping the edges, but a correspondent suggests that a thin shaving be cut off instead of scraping them. He adds:

This is more quickly and easily done with a sharp knife than by scraping, looks better when finished, and there is not so much danger of damaging the capping as is the case in scraping. Bees should never be permitted to get to the outside of sections, but it is impossible to prevent their daubing propolis on the edges, hence the necessity of cleaning. Honey, to bring top prices, must be pleasing to the eye as well as palatable.

Mrs. J. W. Tefft, of Collamer, N. Y., died of pneumonia on Jan. 21, 1889, at Buffalo, N. Y., while visiting friends there. She is mourned by a large circle of friends, as well as her bereaved family.

Mr. William Raitt, of Blairgowrie, Scotland, and one of the editors of the *Bee-Keepers' Record*, published at Liverpool, England, is dead. He died suddenly on Tuesday, Jan. 8, 1889. He was 49 years of age, a widower, and leaves a family of seven children, mostly grown up. From the *British Bee Journal* of Jan. 17, 1889, we gather the following particulars:

On the previous evening he attended what was considered a very successful evangelistic meeting in the Mission Hall, Blairgowrie. On going home from it, he seemed to be in his usual health, and specially happy. About six o'clock next morning, one of his boys, who slept with him, heard him breathing heavily, and called some of the other members of the household, who, on going into the room with a light, saw he was apparently dying, and he expired in a few minutes. The Doctor had been sent for, and shortly arrived. He expressed the opinion that the cause of death had been stoppage of the action of the heart. About three years ago Mr. Raitt had been found almost dead in bed from a similar cause.

Mr. Raitt was a progressive and practical apiarist, and dealer in apiarian supplies. He was the first in England to obtain an American foundation machine, and that was in 1877. He will be sadly missed both in apicultural and social circles.

Personal Discourtesy is entirely unnecessary as well as undesirable when endeavoring to correct an error. We often think some of our best friends err in judgment or in argument, but to correct them will sometimes give offense and break up friendship. A correspondent lately made the following remarks in a private letter:

I have ceased to fight with men as a rule, and now give battle to wrong ideas, as they come out in print. This gives both sides of the question without raising the anger of any one. That this is the better way, I think you will agree. I think it advisable, when battling wrong ideas, to do it so that I can enlighten the public, and not give offense.

We certainly do agree with our correspondent in the above extract, and would gladly have all correspondents copy that noble example.

Statistics are being gathered of the Colorado honey industry. J. M. Clark, of Denver, has reports from about 150 bee-keepers in that State. They report a crop of honey for 1888 of 75,000 pounds. He estimates the crop (including those who have not yet reported) at 100,000 pounds. Concerning this matter, the Colorado *Farmer* remarks as follows:

This is the first attempt ever made to gather statistics of this industry, which will soon be of great importance, as our vast stores of alfalfa give us the advantage over many other States. Our few cloudy days enable them to gather sweets when in more cloudy States they would be hugging the hive.

Alfalfa.—A farmer at Santa Ana, Calif., raised eight crops of alfalfa last year. He was making hay on New Year's Day.

GLEANS OF NEWS.

Prof. A. J. Cook has just returned from New York, where he has been delivering addresses to large audiences in various parts of the State, on "The relation of bees to agriculture." The Professor is an interesting speaker, and his addresses will do much good, by enlightening the agricultural portion of the community upon the true relation of bees to their chosen vocation.

At Albany, N. Y., he delivered a lecture, the outline of which, in the *Country Gentleman*, is as follows:

There is a close relationship between the forces and phenomena of nature. The winds affect the moisture, and the moisture modifies the winds. We cut the forests and let loose the wind and the rain. We crop continuously, starve our soil, and go to the poor-house. Science, which explains this relation, is man's best servant.

This connection of bee-keeping with agriculture well illustrates this relationship, and shows that the farmer needs to know the "whys and wherefores" of all his surroundings. Charles Darwin discovered years ago that cross-fertilization is necessary to full fruitage of many of our plants. Some yield nothing without it. Only insects can do this work for many plants. Early in the season the honey-bee is the only insect common enough to do this work to any large extent. The honey-bee was not a native to America. Thus we know why our early wild flowers are scattering, while the late ones cover the fields and marshes as with a garment. In California, where no winter kills the losect hosts, the early flowers cover the plains.

The honey-bees can reach the nectar of Alsike clover; so the first bloom gives seed. The red clover must wait for bumble-bees, and so the second crop alone is productive. Experiments here and the history of New Zealand prove this. There no seed was produced until the bumble-bee was introduced. Now they raise their own seed. By caging bumble-bees on red clover we can secure seed from the first bloom. Hereafter as we raise our large crops of clover seed, let us think gratefully of the beautiful bumble-bees, rich in their yellow and gold, whose joyous melody in the clover field means for us a bounteous crop and a full pocket-book.

We should especially remember that owing to the cold our insects largely die off, and so for a full fruitage of our plants that bloom early, we must have the honey-bee. This has been proved over and over. Any cultivated plant with sweet or showy flower seeds, must have insects or they cannot bear a full harvest. Our introduced plants mostly bloom in the spring. How important then the bees!

In some cases the wind may be sufficient. Doubtless in all cases insects are great helpers. How often our fruit fails of a full crop, because the cold and rain shut up the bees during the time of bloom. Thus it goes without saying, that the farmer and fruit-grower must either keep bees themselves, or induce their neighbors to do so, or they will fail of the best success. There must be no antagonism between the farmer and orchardist and the bee-keeper. Nature wills that they be friends.

Bees never injure the blossoms of plants; their visits are always and only a benefit. Nor do bees ever destroy sound fruit. The structure and habits of bees, no less than observation, show that this is true. Bees will never attack fruit until a puncture or break in the skin lets free the juice. Then the bee is quick to save the wasting sweets.

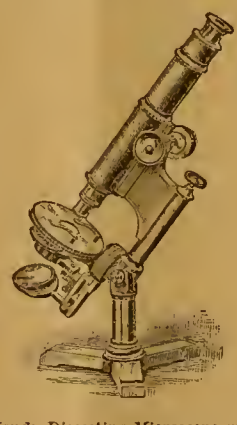
By drawings it was shown that the wasp's jaw was made to tear, but the bee's was not, being gouge-shaped. Bees do, however, visit grapes in swarms, when, for any reason either the puncture of the bird or wasp, or by nature, the juice oozes out. They also crowd about the cider and pomace at the cider-mill, and swarm about raisins exposed to dry out-of-doors. Here the parties interested must unite by screens and other care to mitigate the evil, and then bear and forbear, for all are interested that the bees do not suffer harm. The raisin industry followed the bees, and so bees have the "right of possession." Is it not right then that raisins be dried in enclosures? I am persuaded that when the farmer, gardener and orchardist rightly understand the importance of bees in the natural economy of their own operations, all disputes and unneighborly differences will disappear, and each will rejoice in the others' prosperity, if for no higher motive than mere selfishness.

How Do Bees Breathe?—In an essay by Mr. John Aspinwall, read at the New York State Convention, we find the following very interesting paragraphs:

Bees require a breathing apparatus quite as well as ourselves, and I think it will astonish you when I tell you how complicated it is. In the first place, bees have no lungs like a horse or bird. They do not depend upon one organ to supply the oxygen necessary to enable the several parts to perform their functions.

Before going further, let me explain that the air we breathe is composed of three gases, one of which, oxygen, is the element that sustains *life*, as well as the fire which burns in the grate. Life may be called a burning process.

In ourselves, our blood comes in contact with oxygen within the lungs, and then travels by the most delicate channels to every part of our body. In the bee there is a blood pump like our heart. It is called the "dorsal vessel," and resembles some-



The Handy Dissecting Microscope, made by Bausch & Lomb, Rochester, N. Y.

what an injector, such as is found on every locomotive, but depends upon the opening and shutting of valves, for its successful operation. It leads the blood, received through the several openings in it, to the head, whence it oozes back through the whole body.

Instead of lungs, bees have what is called a "tracheal system"—a trachea is merely an air-tube—and these air-tubes travel in every conceivable direction within the body. They receive the outside air through openings in the body, called spiracles. Adult bees have fourteen of these openings. The spiracles open into large sacs, from which branch out the tubes before spoken of. As I before said, the blood does not receive the oxygen from lungs, and hence these air-tubes must perform this life-giving function. Every part, every member, however small, however delicate, must be reached by these breathing tubes. Bees breathe with a regular motion, but instead of an expanding and contracting of the chest, it is a lengthening and shortening of the abdomen. Watch a tired bee stop at the entrance before going in, and you will see it pant like a tired horse....

Take a good sized pill-box and fill it half full of wax. Catch a worker, and kill it with ether, chloroform or alcohol, and permit the killing fluid to evaporate. With a hair pin, heated over a lamp, make a little bath of melted wax in a convenient spot in the pill-box, and having clipped off the wings and legs of the bee, drop it on its back in the little bath aforesaid. The bee should not be more than half immersed in the wax, which is then allowed to cool. When cold, which will be in about a minute, pour water over the bee until it is covered. In a good light—say sun light—with a needle knife (made by heating the point of a coarse sewing-needle until red hot, hammering it with a tack hammer, on the face of a flat-iron, and after tempering by heating cherry red and plunging in water, sharpened on a hone, and inserted in a match, for a handle), and a fine needle inserted in another match, go to work and cut away the under part of the rings of the abdomen, and carefully lift them off.

If you have good eyesight, or if not, by aid of a cheap lense (magnifying glass) of good construction, you will be astonished at the sight before you. There lie the honey-sac, digesting stomach, bile tubes and intestine. Running in all directions, but starting from the sides, you will note fine white tubes branching out into smaller, and these organs into still smaller, until lost to sight. These are the air-tubes I have been talking about, and you will note that they not only encircle the digesting stomach, but are wound around the other parts in sight. If your lense be strong enough, and you have not ruptured it in your dissection, you may find the nerve system, which lies just under, or when the bee is right side up, just over the wax-producing portion of the abdomen, and which runs the whole length of the bee from tail to brain. You will find it composed of two "cords" almost transparent, with occasional bulgings in which the two "cords" are joined. In and about this very nerve system you will find the fine breathing tubes before spoken of. Up into the compound eye, with its thousands of lenses, run other breathing tubes, every lense being supplied with oxygen in this manner, so that its functions may be performed.

The Ontario Bee-Keepers' Convention was held last month at Owen Sound, the residence of R. McKnight, Esq., Registrar of the County of Grey, who gave the visiting apiarists a right royal welcome. Concerning the next meeting of the International Bee-Association at Brantford, the *Times* remarks thus:

A discussion ensued as to the best course to be adopted in view of this important gathering being had for the second time on Canadian soil. Some were in favor of merging the annual meeting of the Ontario Association with that of the larger body, but it was objected that this could hardly be done in view of the legal status held by the Ontario body. It was felt to be desirable that the American visitors should be received with all cordiality, and to secure this, a special general meeting of the Association was resolved on, and the President and Board of Directors were appointed a delegation to the International body.

The Rev. W. F. Clarke is the President, and Mr. R. F. Holtermann an officer, and we may rest assured that the "cordial reception" will be all that those words imply. We hope for a meeting second to none in the history of the International Society.

QUERIES & REPLIES.

Extending the Brood-Chamber to Secure More Bees.

Written for the American Bee Journal

Query 611.—Is it necessary, or advisable, to again expand the brood-chamber to secure bees enough for the colony to winter well, having been contracted to 5 or 6 Langstroth combs through the white honey season, or from about July 1 to Aug. 10?—New York.

Yes.—H. D. CUTTING.

Yes, sir.—J. M. HAMBAUGH.

I think not.—A. J. COOK.

I am afraid that it is.—C. C. MILLER.

I should say that it is desirable.—A. B. MASON.

It is not necessary, but in my opinion it is desirable.—R. L. TAYLOR.

No; 6 frames are sufficient both for brood and stores.—MRS. L. HARRISON.

Yes. *I* do not practice "contracting" during the honey season. "Keep your colonies strong."—W. M. BARNUM.

I would certainly use more frames in the brood-chamber, if there was a good flow of honey, and the season was favorable.—J. P. H. BROWN.

We never would contract to 5 or 6 Langstroth frames. It is more damaging than useful.—DADANT & SON.

The more bees, the better. I prefer to contract for winter, than during the summer.—P. L. VIALLON.

If I had contracted the hives to 5 or 6 Langstroth frames, I think that I should again expand them to about 8 frames, to make sure of getting plenty of bees for winter.—C. H. DIBBERN.

No, not in this locality; nor do I believe that it is necessary in any similar locality in the United States.—JAMES HEDDON.

Much depends upon locality and season. In some seasons it would be advisable, and in others it would not. I would not contract at all, unless I expected to feed for winter stores.—M. MAHIN.

Not to secure bees, but it is often advisable to so do, that the dark or fall honey may be stored in the brood-comb for food for the bees to winter on.—G. M. DOOLITTLE.

The contracting and expanding question is as yet wholly theoretical, and no rule can be laid down to govern it. The only rule I know of in the matter is, to expand as the colony seems to demand. My bees winter well on from 3 to 8 or 9 Langstroth frames.—J. E. POND.

Do you refer to out-door wintering when, you say, "bees enough for the colony to winter well?" If so, perhaps it would be desirable, still I think that even 5 or 6 frames well filled with brood would make a strong colony—certainly strong enough if wintered in a proper repository. More bees than are necessary to winter well are a positive damage to the bee-keeper after the honey flow.—EUGENE SECOR.

In the first place, I think that it is a mistake to contract at all, if your hives are no larger than an 8 or 10 frame Langstroth hive; but if you must waste your time and injure your bees in that way, it will be necessary to build up your wasted and impoverished colonies if you would have them in good trim for wintering.—G. W. DEMAREE.

I think that the 8-frame Langstroth brood-chamber is just right. This chamber is 12 inches wide, inside. I contract by slipping in an extra brood-frame, making 9; this lessens the spare space, and gives more room for brood, thus crowding the bees into the supers. I consider horizontal, and vertical contraction, and the checking of the queen's disposition to lay, the cheapest kind of "twaddle."—J. M. SHUCK.

Though it is not necessary, it may be desirable to do so under certain circumstances; but as a general rule it is not advisable to do so.—THE EDITOR.

Keeping Bees in a House or Shed.

Written for the American Bee Journal

Query 612.—I have a bee-shed 64 feet long, extending east and west; it is 8 feet wide, and the north side has shutters, so that I can raise them in hot weather, and close them in the time of swarms. On the west end of it I have a house for keeping honey and bee-fixtures. The sun does not shine on the hives at all in hot weather. 1. Is this a good place to keep bees? 2. Is a house a good place to keep bees in, and let them pass through openings in the wall?—Ind.

1. No. 2. I think not.—A. J. COOK.

1. Yes. 2. Not so good as a lawn, in my opinion.—WILL M. BARNUM.

I have never used a "bee-house." I prefer the open ground.—H. D. CUTTING.

1. I would not like it. 2. I would not like a house, either.—C. C. MILLER.

I prefer to have my hives out-of-doors.—J. P. H. BROWN.

1. Yes. 2. The shed is far better than a house.—DADANT & SON.

1. It is, both for winter and summer. 2. I have never used a house, but I would not consider it desirable.—MRS. L. HARRISON.

I prefer to have bees in the open air, and, if possible, partially shaded from the evening sun by trees.—P. L. VIALLON.

1. You ought to be able to answer this question better than I can, for I never tried it (and I never shall). I have never heard of a bee-house (or house apiary) that paid the interest on the investment.—EUGENE SECOR.

1. In this climate I prefer that bees stand out, with only a little shade in the summer. Your shed is all right for winter. 2. I doubt it.—M. MAHIN.

1. Your description is too indefinite. Does the sun shine on the bees in cool weather? Is the shed an open one, or is it closed on all sides? If it is cool in hot weather, and warm in cool weather, it would do. 2. That depends. See answer to 1. It would generally be a very inconvenient place.—R. L. TAYLOR.

1. A shed like you describe has been often used, but I think with poor satisfaction. It requires a great deal more labor to manipulate bees in a penned-up place like a shed. 2. No.—G. W. DEMAREE.

1. The shed has its advantages and disadvantages, all things considered. I would prefer open territory, with large sun shades, and wind-breaks on the north and west. 2. NO!—J. M. HAMBAUGH.

1. I prefer to have the hives where the sun can shine on them in the morning and evening, and be shaded in the hotter part of the day. 2. Having never tried it, I do not know. Some prefer a house.—A. B. MASON.

After keeping bees for many years, in all sorts of places, I prefer at last the full glare of the summer sun. Let the hives have a good shade-board for the hottest weather. I do not think that a house or a shed, or a shady place, is a good place to keep bees.—J. M. SHUCK.

1. I know a bee-keeper who has just such a shed, and his bees do well, and it is a comfortable place for bees and bee-keeper. 2. A house where the bees pass out through the wall is a very good place for bees, but the expense of such a place is out of proportion to all the advantages. A good hive and a little shade is all that is required.—C. H. DIBBERN.

1. With proper care and attention I should say that it would, although I prefer the open air. 2. From my own experience, I should say no. Some claim to have been successful with such houses. They demand too much care and attention to suit my time or convenience.—J. E. POND.

1. It is very good in some respects, and very bad in others. I prefer the entirely out-doors system. 2. I abandoned the house apiary, where the bees flew through the wall. It has both advantages and disadvantages, but more of the latter, I think, considering expense and all.—JAMES HEDDON.

I should prefer to have each hive stand out by itself, on a well-kept lawn; but your arrangement might answer very well, if the hives are not so close as to be unhandy about working among them.—G. M. DOOLITTLE.

Houses and sheds for bees have been "tried and found wanting." No place has been discovered so far which is as generally desirable for an apiary as a well-kept open lawn. Wind-breaks on the north and west are sometimes an advantage, if the apiary is on level ground, and not shielded by friendly woods not far away.—THE EDITOR.

CORRESPONDENCE.

PRICE OF HONEY.

Extracted and Comb Honey at the Same Price.

Written for the American Bee Journal

BY DR. C. C. MILLER.

On page 20 occur the following words: "If there be anything to complain of, it was the action of those who first used the honey-extractor, in placing the price of liquid honey at a less amount than was asked for honey in the comb, with wood, glass and wax weighed up to the buyer! It would be a very difficult matter now to raise the price of the clean, *net*, liquid article—but at the outset it would have been an easy matter to have obtained a larger price for it than for that in the comb."

I produce comb honey nearly altogether, the higher price to be obtained for it being my reason, perhaps coupled with the fact that for years I have made a special study of producing comb honey. But when you come right down to the intrinsic value of honey as an article of food, I think that I must always admit that the same honey is to me better out of the comb than in it. In fact I always prefer for my own eating extracted honey, if it is equal in quality to that in the comb, and I generally produce enough extracted honey so that I can have it on the table three times a day.

If I remember rightly, I have seen the ground taken that chewing the comb gives a piquancy of flavor, or a something that is wanting in the extracted. Take a nice section of honey, cut away half of it and get the free honey from it, either by running it through the extractor, or by pressing it out with a knife. Now you have a half section of honey in the comb, and the clear honey from the other half. If I eat a piece of the comb honey of the size of a hickory-nut, and then with a spoon eat the same quantity of the clear honey, I must say that there is something more satisfactory about the comb honey. What is it? It can hardly be a difference in the honey, for taking the honey out of the comb could not change its quality.

It is claimed that the wax gives the extra flavor. But the wax can give no flavor that it does not possess, and if the wax is chewed alone it has scarcely any flavor, certainly nothing remarkably fine. I cannot think any improved flavor is given by the wax. I think that the difference arises from the fact that in the one case the honey is chewed, and in the other it is not; or, if you please, the comb honey is eaten, and the clear honey is drank. The act of chewing excites the flow of the secretions of the mouth, and this increases the pleasure of the taste.

When I have been extracting honey, I have found that nearly every one who happened to be present, liked to chew the cappings, and a good many of them thought the flavor better than that of honey in any other form. I think that it was simply because there was more chewing.

I think, therefore, we must admit that it is pleasanter to eat the comb honey than to take the same amount of clear honey without chewing. But do we usually use the clear honey without chewing? Of course not, and the question is, not which tastes better eaten alone, but which tastes better eated with bread or some other article of food. In that case one kind gets as much chewing as the other, and I doubt whether the advocates of the wax flavor can tell whether they are eating comb honey or extracted honey on their bread, except as they can *feel* the wax in the mouth. The wax is indigestible, and as ordinarily eaten I know of no advantage in having it present.

So I come back to where I started, that if the quality be the same in each case, I prefer extracted honey to comb honey. But that *if* comes in the case, and "there's the rub." In the majority of cases, the quality of extracted honey is *not* equal to that of comb, and indeed you cannot expect it to be, so long as raw nectar is extracted with the honey, and then no pains taken to ripen or improve it. I suspect that if the quality of extracted honey were always what it might be, and what it should be, that comb honey would be, to a large extent, driven out of the market.

Then why should extracted honey command any lower price than comb? Some succeed in getting the same price for it, and it is the thought of a good many that it never should have been sold for any less price than comb honey. If a wrong has been done, is it too late to right it? Suppose we place the same price on each by raising the price of extracted and lowering that of comb. My friends, the thing wouldn't work. The great law of supply and demand controls the honey market just as it does every other market. You will never again buy a buffalo-robe for as low price as formerly, because the supply has almost ceased. Some kinds of fur that formerly sold for a high price, although in no greater supply than formerly, bring a low price because fashion has forbidden their use, and demand has ceased.

But you say extracted honey as an article of food is of equal value with comb, therefore the price should be equal. I grant your premise, but not your conclusion. If you are correct, then I might say that cotton goods make better overalls than silk, therefore the cotton goods should be higher in price. The fact is, the two kinds of honey are to some extent independent of each other. If people find, in general, that extracted honey is not equal in quality to comb honey, the demand will be less. Then the appearance of comb honey on the table gives it a greater value in the eyes of many.

Now, please do not throw so much blame on those who have sold extracted honey at low prices. It costs more to produce comb honey than the extracted, and so long as that is the case, I think we will always find the price for comb honey higher.

Granulation of Honey.

Referring to Mr. Bovee's opinion about honey granulating (see page 20), I may say that I never knew honey to granulate so early for me as this year. I think that some of it commenced to granulate within two weeks after extracting. The fact that Mr. Bovee never saw honey granulate within two months after extracting, does not warrant him in saying that it never does so. It is possible there might be found persons who had never seen granulated honey, but that does not warrant them in denying its existence.

But please do not be too hard on Mr. Bovee. We have all made mistakes, such as saying that all pure honey would granulate.

Marengo, Ills.

[The foregoing article is right to the point. If extracted honey is equal in quality to the comb, it certainly *is* of more value, because it is *all honey*, and minus the wax and wood. Upon that

"if" hangs the whole argument as to its real value and deliciousness.

As to the pleasure in eating comb honey, there is a certain gratification in chewing it, but the *real* delight in eating it is that of *absorbing* its delicious sweetness; and that is done by the sense of *taste* located in the tip of the tongue. It is "rolled under the tongue as a sweet morsel," says an old sage. David, the psalmist, also avers that wisdom is "sweeter than honey and the honey-comb"—by implication assuming that the comb is even sweeter than the honey it contains!

When eating extracted honey, it is carried by the spoon to the tongue beyond the tip where the sense of taste is located, and much of the pleasure of eating it is lost.

Even though the wax is indigestible, chewing the wax and mashing both together brings out that peculiar sweetness which is so pleasant to the sense of *tasle*, and accounts for the soothing, satisfying, and delightful sensation produced by eating honey in the comb, or of chewing the fresh cappings.

We sent a "proof" of the foregoing article and comments to Dr. Miller, and this is his reply:

Does not the "honey-comb" in the Scriptures always mean honey in the comb? See Luke 24, 42.

If the implication is "that the comb is even sweeter than the honey it contains," then I am wrong, and comb honey has an intrinsic value beyond "extracted." But *supply and demand* is what controls price. My customers have always been told that extracted is intrinsically better than comb, and I kept the price the same as long as I could, but it cannot be held there.

We admit that sometimes the word "honey-comb" in the Bible means "honey in the comb," but *not* always. In the passage quoted from the Psalms such a meaning would make the quotation nonsensical!

That commercial "supply and demand" control prices is true; but public sentiment and education, either in right or wrong channels, are very potent in regulating *values*, and thereby influencing "supply and demand!"

The Doctor correctly told his customers that extracted honey was "intrinsically better than comb," and held "the prices the same" as long as he could, but public sentiment had been educated that it was of *less value* than comb, and "supply and demand," so educated, "regulated" the price at the less amount—and that is the reason he has to admit that "it cannot be held there." The education was erroneous, and the regulation unjust.—ED.]

LOVE AND HONEY.

Love is the centre and circumference,
The cause and aim of all things; 'tis the key
To joy and sorrow, and the recompense
For all the ills that have been or may be.

Love is as bitter as the dregs of sin,
As sweet as *clover-honey* in its cell,
Love is the password whereby souls get in
To heaven—the gateway that leads sometimes to hell.—*Selected.*

EXPERIENCE.

How I Began the Business of Bee-Keeping.

Written for the American Bee Journal

BY F. C. ERKEL.

In the first part of July, 1885, I bought a couple swarms of black bees in box-hives, and moved them home, about two miles, in a spring buggy, before they brought in enough honey to cause any danger of breaking down the new, tender combs. They went right to work, and in spite of

A swarm of bees in July
Is not worth a fly,

as I had been told, they filled up their hives, and were in good condition to go into winter quarters.

I hardly knew the very first thing about bees. I *had* found a swarm on a bush four or five years before, when I was a small boy, and my father had given an old man a dollar for an old box in which he had put the bees when we took them home, and let them stand until they perished the following winter. We had never heard of such a thing as wintering bees in the cellar. I do not think that before I found that cluster, I could have distinguished a honey-bee from a bumble-bee, but when I made up my mind to buy a couple colonies, I also decided to find out all I could about bee-keeping, and handle them in an intelligent manner, or not at all.

I talked with all the old bee-keepers that I met, and got all the information possible; most of them told me that I had better get movable-frame hives, if I had really decided to keep bees; but that I would be sorry I had ever turned my attention toward that industry. One man with whom I talked the most, and who supplied most of the market round about, told me that he had been keeping bees for a number of years, and during all that time he had kept a strict account, and that the bees were in debt to him after all that time. I must confess that that discouraged me some, but I decided that I would not back out until I found out for myself, if there was any profit in them.

In the winter of 1885–86, I put 2 colonies in box-hives in one corner of the cellar, which I had divided off with building paper. I turned the hives upside down, and removed the bottom-board, which left them without a top, but with plenty of air. There I left them until spring, when I took them out of the cellar and placed them on the summer stands; but may be I did not have an interesting time of it, placing back the bottom-boards on those old box-hives with the tops of the combs all covered with bees, which acted in a very hostile manner, I thought, toward one who was trying to work for their own good; but I got them out, just the same, even if the folks did hardly recognize me for the next few days.

The bees went to work with all their little "mights," bringing in pollen, and by May 1, both swarmed, the two large swarms going together, making about three pecks of bees. Then I was in a pretty mess. I had ordered some new hives to put the swarms into, but they had swarmed long before I expected it, and the hives had not yet come. Then, what an idea for them to go together in that way! I had never heard of such a thing.

I nailed together two box-hives, put them on a table which I put under the limb on which the bees clustered; then I shook the bees off the limb in front of the hives, and with a wing I guided about half the bees into each hive, in hopes that there was a queen in each hive, for I wanted to increase my number of colonies, and I thought that it would be a great detriment to have them go together in that way; but it did no good, for although I had them divided quite equally, it was but a short time before they were all in one hive again. I think that was the largest swarm I have ever seen, and they made good use of the time, for in a few days they had the hive full of comb, and swarmed, and they and the old ones kept on swarming, so that in the fall I had 3 colonies in box-hives, and 7 in Simplicity hives. I had increased the 2 colonies to 10, and had taken some comb honey.

During this time I made pretty good use of bee-books, and decided to rear

some queens the next summer, if my bees should again winter nicely in the cellar. They were in good condition when I put them in, and in the spring I took out all the 10 colonies with (as it seemed to me) very little less honey than they had in the fall.

I bought another colony in a box-hive, and one in a Simplicity hive which had a very nice Italian queen, so that in the spring of 1887 I began with 12 colonies, and put 38 colonies into the cellar in the fall, besides about half a dozen that absconded, and one which I sold. I thought that was pretty good for two years, and although I did not get much honey, I had increased my apiary, which I cared more for than honey, and had also given most of my colonies young queens that I reared myself, and brought them up from blacks to hybrids.

I now thought that I had better begin to work for honey, and not quite so much for increase, for although I take the AMERICAN BEE JOURNAL, and, as a general thing, read every word in it, together with other bee-literature, I began to fear that my colonies would increase faster in number if I should let them go on, than I would increase my knowledge of bee-keeping.

Le Sueur, Minn.

BEES OUT-DOORS.

Good Way to Secure the Sowing of Alsike Clover.

Written for the American Bee Journal

BY I. J. GLASS.

I do not know what kind of a bee-keeper I will be called when I say that my bees are still on the summer stands, without any protection whatever. I have previously wintered my bees in the cellar without loss, as I have stated in former communications; but owing to my time being completely occupied in other duties, I have somewhat neglected my bees.

I cultivate a farm of 200 acres, and teach school during the winter, which keeps me pretty well occupied. I have waited all the while for a "cold snap" before carrying them into the cellar, and whenever it did turn a little cold, by the time Saturday came (the day I have outside of school hours), it would always be moderated, and sometimes the bees were on the wing. So I have kept procrastinating until here it is, near the middle of January, giving us regular spring weather. Although there is plenty of time yet to give us a few blizzards, yet I do not look for much severe cold weather.

I supposed all the while that I had 61 colonies, but upon investigating them I find one hive deserted from lack of stores. I thought they were all abundantly supplied with good honey, but that one had been overlooked; the remaining sixty are in splendid condition.

I took 1,000 pounds of surplus from my bees the past season, and retailed the greater part of it at 18 cents per pound in my home market. My bees did not store a particle of surplus honey until after the middle of August, when the boom set in. My hired man let several swarms go to the woods, thinking it useless to secure them so late in the season.

Alsike for Bee-Pasturage.

I induced a neighbor of mine to sow 65 acres of Alsike clover, by paying the difference between it and red clover seed. I got big returns the first season, and another neighbor is going to sow a lot the coming spring, under the same conditions. This, with what I have sown, and what I am going to sow next spring, will give me an abundance of bee-pasturage.

We have had no white clover here for the past two seasons, but the prospect is flattering for a big yield another year, and I trust we who have been having poor yields, will be able surprise even ourselves.

Sharpsburg, Ills., Jan. 14, 1889.

AFTER-SWARMS.

The Various Methods of Preventing them.

Written for the American Rural Home

BY G. M. DOOLITTLE.

There are various methods of doing this, such as removing the old colony to a new stand, as soon as the swarm has left it, setting the hive containing the new swarm on the stand it previously occupied; cutting off all of the queen-cells but one on the fifth or sixth day after swarming, and hiving the after-swarms in a box on top of the old hive till the next morning after they come out, when they are to be shook out of the box in front of the old hive, and allowed to run in, so that the young queens will all but one be destroyed. Now all of the above plans have their various advocates, who think them superior to anything else, but as the correspondent has asked for the *best* plan, I must give him the plan which I consider best from my standpoint.

There are two plans which I have used with good success at all times, and use them in accord with what I wish to do with the old colony of bees. Where I wish to treat swarms the way they are generally treated by hiving them on a new stand, I proceed as follows: As soon as the swarm is hived, I go to the old hive from which it came, and mark on it with a lead pencil, Sw'd, 6-22, which tells me at a glance that a swarm came from that hive on June 22, should that be the date on which the swarm issued, and the one which was marked on the hive. If it should be another day the date is different, but the plan is the same as suited to any day on which the swarm is cast.

On the evening of the eighth day from the date on the hive, I listen a moment at the side of the old hive, and if swarming has been done "according to rule," I hear a young queen piping, when I know that a queen has hatched, and an after-swarm will be the result if it is not stopped. If no piping is heard, I do not listen again till the evening of the thirteenth day, for the next rule is, that the colony swarmed upon an egg or small larva being placed in the queen-cell, which allows the queen to hatch from the 12th to the 16th day after swarming. If no piping is heard by the evening of the 17th day, no swarm need be expected.

When it is heard, which it will be in nineteen cases out of twenty, on the eighth day, I go early the next morning and take every frame out of the hive, shaking the bees off of each (in front of the entrance) as I take them out and return them again, so I shall be sure and not miss a queen-cell, but cut all off, for we know that there is a queen hatched, from the piping which we have heard. Once in a great while the bees will take a notion to go with the queen when she goes out to be fertilized, but such a happening is of rare occurrence, and has nothing to do with what is known as after-swarming. The above is a sure plan of accomplishing what we desire to, under all circumstances which may arise, while those spoken of at first will work at times, and at others not.

The other plan which I use is equally successful with the above, but is used only where the old hive is carried to a new stand while the swarm is in the air, hiving the new swarm on the old stand; in which case I proceed as follows: As soon as the swarm is seen issuing from any hive, I go to the shop where I get a box or hive, which has previously been prepared, having the desired number of frames (I use frames of comb in this case) in it, taking it to the hive from which the swarm came, when the frames of comb are set out of the box near the hive. I now open the hive and take out the frames of brood, putting them in the box. If the combs of brood seem to be well covered with bees, and the

weather is warm, I shake a part of them off in front of the hive, before putting the combs in the box. If few bees, or cool weather, I put all in the box, setting the box in the shade, and a rod or so from the hive, as soon as all of the frames of brood and bees on them are in the box. I now put the frames brought from the shop into the hive, and re-arrange it, by which time the swarm will return if the queen has a clipped wing. If the queen is not so clipped, then the swarm is to be hived in this prepared hive on the old stand, the same as any swarm is hived. I next put the combs of brood and bees which are in the box, in a hive where I wish the colony to stand, and adjust the entrance to suit their wants, when they are left till the next morning. By this time nearly all of the old or field bees have gone back to their old location, so that the young bees which remain are ready to accept of anything in the shape of a queen.

I now go to my queen-nursery and select such a young virgin queen as I wish them to have, place her in a wire-cloth cage, and take her to this hive. Upon opening the hive, I take out one of the central combs, holding the same up before me. As the bees are all young bees, they will at once take to filling themselves with honey, and while they are so doing, I let the queen run on the comb where there are a few cells of honey not occupied with other bees eating out of them, when the queen will commence to fill herself the same as she sees the others doing. The frame is now lowered down into the hive, and the hive closed. In this way the queen and bees appear natural, and I have yet to lose the first queen put in under such circumstances. As the colony now find that they have a queen, they proceed at once to destroy all of the queen-cells, so that no after-swarms ever issue, at least an experience covering a period of six years says that none do. In the above two plans we have something very near perfection, if not quite so.

Borodino, N. Y.

MANAGEMENT.

Hives, Supers, Hiving Swarms, Bee-Cellars, etc.

Written for the American Bee Journal

BY GEO. H. KIRKPATRICK.

I began bee-keeping in 1881. My first hive was a good 10-frame Langstroth, and though I have made a great many experiments with different styles of hives, I have always held to the Langstroth frame, and I expect to do so until I am sure that I have found something better; but I do not expect to ever see a better one.

The hive I have decided to use exclusive of all others, is a plain, simple box, 13¼x20¼ inches, outside dimensions (made of ⅞-inch lumber), cut square on the top and bottom, and receives 8 Langstroth frames. The bottom-board of this hive is made of ½-inch lumber. To make it secure, I tack on a strip ⅞x2 inches, and make a ½-inch groove in it ⅜ of an inch from the top edge; with this strip I make a frame around the bottom, and insert the ends of the bottom-boards into the groove, which makes it solid; and it is also reversible, one side having a ⅜-inch bee-space, which makes it just right to set the brood-chamber on in the summer; while the other side has a 1⅛-inch space—this side I prefer to turn upwards in winter. It gives more space for the dead bees to drop in, and one can, with a wire hook, drag them out at the entrance without touching the bottoms of the frames, and annoying the colony.

The supers are of the same dimensions as the hive, and can be tiered up to any desired height, the only difference being in the thickness of the lumber. The ends are made of ⅞-inch lumber, and the sides of ⅜-inch. This leaves the super just 12 inches wide—the right width to receive 28 sections, 4¼x4¼, and 7-to-the-foot, and can be used with or without separators.

The cover is made of a ⅞-inch board cut 16 inches wide and 24 inches long, and well cleated at each end. I use a wood-zinc break-joint queen-excluding honey-board, and without it the hive would be incomplete.

Spring Management of Bees.

I make a special effort in the spring to get each colony strong, so as to have the hives fairly boiling over with bees at the beginning of the expected honey harvest. It is with these strong colonies that we get the large surplus, and without them our crop of honey would be small, and our pockets empty. It is the strong, populous colonies that fill the sections with nice, white honey, and leave off the propolis. This gives the honey a tasty appearance, and makes it ready for sale at a fair price.

Increase of Colonies.

I prefer to make my increase of colonies by natural swarming. I want large ones, and early. It may be stated, as a rule, that a colony of bees dividing up its forces by swarming, will not produce as large a surplus as a colony under the same condition, that does not swarm. Be this as it may, I prefer the swarm.

Method of Hiving Swarms.

I arrange a number of brood-chambers with about 6 brood-combs, and when a swarm issues, it is hived in one of the prepared brood-chambers on the old stand. The parent colony is then placed on a new stand, and the surplus taken off and placed on the newly-prepared one. A wood-zinc queen-excluding honey-board is placed on the brood-chamber, and the super placed over it. The transfer is usually made while the bees are in the air, or it may be done within 24 hours.

If increase is desired, I work the parent colony for extracted honey the remainder of the season; if increase is not desired, I shake the bees from the combs in the parent colony in front of the newly-hived swarm. I then have all the bees that the old hive contained in the one just right for comb honey. The brood taken away is placed over a colony capable of taking care of it, and is used for starting nuclei, and hatching out the queen-cells that the combs contain. If they are choice stock, valuable queens can be reared in this way, and should be saved.

Cellar for Wintering Bees.

If I were to winter bees on the summer stands, I would by all means use chaff hives, as they are the very best for out-door wintering. But if one keeps as many as 40 colonies, or more, it will pay to build a cellar. The difference in the cost of 40 chaff hives and 40 single-walled ones, will amount to about $60; and that amount will pay for the material to build a cellar, such as I have.

My cellar is 12x18 feet, and built as follows: I first dug a hole 2 feet deep, then built a wall 6 inches high all around the cellar, and on this I placed the sills. I then set up the studding, which was 7 feet in length. I weather-boarded it with pitch-pine lumber, and then cemented it on the outside, and banked the earth up to a height of 6 feet. I used 6-inch joist, and cleated it overhead. I then filled in between the joist with sawdust, and laid on a tight floor.

I then extended the building 7½ feet higher. In the upper story I have a real neat little shop, just the place for nailing up hives and supers, and, in short, just the place to prepare every thing needed in the apiary.

The cellar is ventilated by a chimney built from the cellar, and extended up through the shop. I also have a 6-inch tile running from the cellar out through the bank. This tile I keep filled with flax-tow, except when the cellar gets too warm, then I draw it out, or put it in loosely, so that the air will pass through it.

The cellar is arranged with two doors. I open one of them, and enter the cellar-way; I then close it, and open the second one, which opens into the cellar.

As this cellar cost me only $60, I think that I have a cheap one. When I first began to work in the shop over the bees, I was afraid that the noise would annoy them, but as the hives do not touch the frame of the building, they do not receive any jars. They are placed on scaffolds built from the ground up. The average temperature of the cellar is 44°, and I have no trouble to keep this temperature.

New Paris, O.

CAN BEES HEAR?

The Various Sounds Made by the Bees.

Written for the American Bee Journal

BY A COUNTRY BEE.

The editor of the AMERICAN BEE JOURNAL cannot be expected to be a perfect encyclopedia of bee-literature, with each phrase, and phase, of the various ideas of all the writers labeled and indexed for reference, every time he looks over a manuscript; therefore it is not surprising that the article on page 39, entitled, "Do Bees Hear," by Mr. C. E. Woodward, should have found its way into the BEE JOURNAL.

Permit me to make quotations from an article by Mr. G. B. Peters, Council Bend, Ark., as it appears in the "A B C of Bee-Culture," on the subject of swarming, of which that on page 39 is an exact copy:

"I will remind the reader here that bees have different sounds to accomplish different ends. The only natural sound of bees on the wing is that produced by the returning laborer when she comes, at even, laden with spoils collected from some flowery field. Who has not been charmed by such industrious energy, as those mellow tones died in the entrance of the hive?

"The shrill note of the pugnacious defender of the hive is familiar to every child. The sharp sound of bees just beginning to lead out a swarm, heralds its advent to the apiarist, and is very different from the two former sounds.

"The coarse bass roaring of the swarm before it begins to cluster is heard only when they are in search of the queen, and is kept up by both workers and drones; then follows the sharp cutting sound as they begin to cluster, to call the colony together, which is well known to the bee-keeper as the signal of congregating.

"Then the shrill hissing sound of the escort that leads them to the woods blends with the roar of the rear part of the swarm, making a strange compound heard only from absconding bees. Then, again, in that 'happy hour,' when they have found a house, we hear the happy hum made by a peculiar position of body, and indicating peace and contentment.

"Also a sound of distress, when annoyed by smoke or enemies, rings through the hive, and no wail of misery from any other insect tribe can equal it. Finally we have the ventilating sound at the entrance and all through the hive, which, in hot weather, may be heard quite a distance.

"All these different sounds are instinctively associated with certain purposes, and the movements of the queen are generally governed by them. She thus follows certain sounds as do the whole colony. She never leads the swarm, but is attracted by the roaring mass."

Earlier in the article I find "Queen, workers, drones all take wing, rise high in the air, and abandon old home, kin, and everything forever." Also, "I noticed a revolving lot of bees in each, about five feet through, leading the van with a hissing sound."

[By comparing the article written by Mr. Peters, with that on page 39, it is very evident that Mr. Woodward has copied seven out of his nine paragraphs bodily without credit, and has imposed on us. It is a clear case of inexcusable plagiarism.—ED.]

ODORS AND BEES.

Are Bees Attracted More by Smell than Sight?

Written for the American Bee Journal

BY MRS. M. B. CHADDOCK.

In Prof. Cook's letter about the cardinal flower (on page 926 of *Gleanings*), he says: "All our botanists believe that odor and color in flowers are developed peculiarities .....We see, then, why many showy flowers, like this cardinal bloom, and the Rocky Mountain bee-plant, attract bees and other insects without odor."

But do we *see* it? Is there any flower with nectar in its heart, that is *odorless?* I do not know of any, but I am, of course, unacquainted with the plants named. If the flowers are odorless, the honey must be odorless as well. Did anybody ever smell any odorless honey?

Then I want to ask, does a field of red clover have a stronger smell than a field of white clover? The fragrance of acres of white clover is ethereal, delightful and refined; that of the red clover is stronger and coarser. How does Prof. Cook know that the bees are attracted to the red clover field by color? He admits that the bees are drawn to the white clover by odor, and if the red clover has a stronger odor, what is to hinder them from being influenced by it?

But do the bees generally pass the red clover by? Do they not "roar" over it (at times, when there is no honey in other flowers), alight on the blossoms, and run their tongues into the separate tubes of the blossoms? and will they not keep on doing this until experience teaches them that they can get nothing? They smell the nectar, and are wild to get it, but cannot.

On page 627, of *Gleanings*, Prof. Cook says: "Note the three broad petals. They not only say 'come,' by their bright hues, but by the restful footstool which they offer the weary bees."

Bees care not one whit for "foot stools"—they mean business, pure and simple, and do not hunt around for "footstools." When eagerly reaching for nectar, they hang on the tassel like blossoms of flowers, and roar over the maples and box-elders that offer them no footstool at all. A man clinging with his hands and feet to a sheaf of wheat suspended in mid-air, would have just the same kind of a "footstool" that bees have on the maple blossoms.

That bees are attracted almost wholly by odor seems to me to be too plain a proposition to need proof. Once I put some honey in the cellar-way—a small landing in the darkest corner of the cellar—and the bees went through a crack about half an inch in the thick cellar wall, and carried away the honey. The cellar was full of bees, and they went and came in a regular stream. Did they smell that honey?

In the winter time I keep my empty hives and hives that are partly filled with honey, up-stairs in the "ghost-haunted chamber," or, as we generally speak of it, "the long room." The windows and doors of that room are always to be kept shut. But once the door (opening into another room) was left ajar, and the bees coming in through the bed-room windows, found the honey, and began carrying it away.

Again, when I used to "render out" beeswax, the bees always smelled it, and came swarming around the doors and windows, butting their heads against the screens.

To-day I tried a scientific experiment. (I have just as much right to try scientific experiments as Prof.

Cook has.) I was hanging the clothes on the line, which is out near the bee-hives, and I thought of what Prof. Cook said about the cardinal flowers. I said to myself, "All these red aprons and under-flannels must be as conspicuous as the cardinal flower," and I waited and watched to see if the bees that were flying about would alight on them. I watched for about ten minutes, and only one bee alighted on the clothes, and it did not pretend to use its tongue. Then I came into the house, took a saucer of honey and placed it down among the dead grass, and twisted the tops of the grass over it like an Indian te-pee; and as I went back and forth, I watched to see if the bees would find it soon. In a few minutes I saw half-a-dozen bees flying about it. In half an hour they were "roaring" over it, and had carried the honey away, leaving the comb dry.

In "The Physiology of the Honey-Bee" we read: "17. But the celebrated Darwin was mistaken in saying that the colorless blossoms which he names obscure blossoms, are scarcely visited by insects, while the most highly colored blossoms are very fondly visited by the bees. (Gaston Bonvier, 'Les Nectaries,' Paris, 1879.) 18. For, although color attracts bees, it is only one of the means used by nature to bring them in contact with flowers. The smell of honey is certainly the main attraction, and this attraction is so powerful, that frequently, at day-break in the summer, the bees will be found in full flight, gathering the honey which has been secreted in the night, when nothing on the preceding evening could have predicted such a crop. This happens, especially, when there is a production of honey-dew after a storm. We have even known bees to gather honey from tulip trees (*Liriodendron tulipifera*) on very clear moonlight nights."

If the above quotation proves anything, it proves that *odor* is a much more important factor than *color*.

Again, on page 761 of the AMERICAN BEE JOURNAL for 1888, where the editor of the *British Bee Journal* reviews Prof. Cook's "Manual of the Apiary," he says: "Although their sense of color is very keen, our author (Prof. Cook) believes 'more has been made of this matter of color than truth will warrant.' We think so, too, and believe the experiments of Sir John Lubbock go to prove, not that bees prefer one color to another, but that they can be accustomed to recognize a certain color."

So, then, Prof. Cook says that "more has been made of this matter of color than the truth will warrant"—and to this sentiment I say, "Amen!"

Vermont, Ills.

SEASON OF 1888.

A Large Crop of Fall Honey Secured.

Written for the American Bee Journal

BY JNO. A. THORNTON.

When the spring of 1888 opened, my colonies were in average to good condition, and continued to increase in bees till the time for white clover to bloom, when all were in good condition to gather a large surplus; but there was no nectar in the clover that did bloom. The bees had the swarming fever about this time, which was caused by honey-dew gathered from the oak leaves and some other source. It was of very dark color, and not fit for use except for daily food for the bees. From this source there was 1,200 pounds of surplus taken, about July 15, from the surplus departments, which I am saving for spring feeding.

About Aug. 1, the yield commenced from what is commonly called "smart-weed," and honey continued to be gathered up till Sept. 20, when my crop of honey of the season was all gathered. It amounted to 4,500 pounds in one pound sections, and 3,500 pounds of extracted honey, which I have been able, on account of the absence of any clover honey, to sell at about the same price as I could have sold clover honey. In color it would compare favorably with clover honey.

I began the season with 150 colonies, and increased them to 200 colonies. They were in two apiaries five miles apart. One apiary had only 25 colonies in the spring, and cast nearly 40 swarms through the summer, which caused a great amount of work in uniting and keeping down so much increase. As it was, the apiary was only increased to 49 colonies, and the amount of surplus was 1,500 pounds from this apiary.

The home apiary did not swarm quite so much, though nearly 100 swarms issued from May 8 till Sept. 5.

The method of keeping down increase mostly practiced was, to hive the swarm on the old stand, remove the old stand only to one side for three or four days, when the hatched bees were shaken off in front of the new hive and swarm, and the combs and brood were put on the hives of colonies worked for extracted honey.

The prospects for 1889 could not be better, as all idle ground and pasture land have a good crop of white clover from the seed, as well as a large amount of the common red clover, sown on account of the drouth killing all that was sown in 1887.

Lima, Ills., Jan. 14, 1889.

WINTERING.

The Passage-Ways between the Hives in the Cellar.

Written for the Farmers' Review

BY MRS. L. C. AXTELL.

The 200 colonies that we have in the cellar are arranged in rows three hives high. The rows are all wide enough apart so that we can go between them and sweep out the dead bees once in two or three weeks. It is very unhealthy to so arrange the bees that they cannot be swept out, and lie all winter on the cellar bottom and mold, as ours did for the first few years that we kept bees. Before spring the cellar smelled very badly, and when the hives were carried out in the spring, sometimes there would be bushels of dead bees, when there were 100 to 150 colonies in the cellar. Now the cellar smells pure, and when I take a light down, I can see the round balls of bees cluster clear down upon the bottom-board, as the fronts of all the hives are raised an inch.

It is a pretty sight to see the golden beauties all snugly tucked up in a tight cluster. I feel almost constrained to thrust in my hand and pat them—perhaps I would, if it were not for disturbing them.

The past three years have been hard on bees; those who liked to feed bees had the chance to do so to their heart's content. But few bees have lived that were not fed, even in the midsummer time.

Last summer we found some of our colonies clear out of food. The last of August they began to gather honey, and for about 3 weeks they stored it very fast, filled up their hives nicely for winter, and some of the strongest colonies stored some surplus; but bees late in the fall will not carry their honey above into surplus receptacles, until their brood-combs are heavily laden—first with brood and then with honey—and then, as fast as the brood hatches out, they fill the cells with the honey, until, for want of room, they carry the remaining nectar up above into the surplus receptacles. Our 200 colonies produced about 800 or 1,000 pounds of surplus honey last fall, besides plenty for winter stores.

Roseville, Ills.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble, and at the same time help to scatter apicultural knowledge and promote the welfare of our pursuit.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

May 1, 2.—Texas State, at Greenville, Tex.
G. A. Wilson, Sec., McKinney, Tex.

May 4.—Susquehanna County, at Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Early Brood-Rearing. — Geo. W. Morris, Cornishville, Ky., on Jan. 26, says :

We have had no zero weather here yet. On Jan. 23 I opened two hives—one moderately strong in bees, and one weak—and found eggs, larvæ, and sealed brood in both. Bees have had a dight every tew days up to the present time, and prospects look flattering.

Alfalfa Honey.—Thos. B. Brundage, Sheridan, Wyo. Ter., on Jan. 25, writes :

In the spring of 1888 I purchased 2 colonies of Italian bees (or what were supposed to be Italians, though I do not think they are). They were shipped on May 27, and arrived in Wyoming June 2. I had 2 swarms from one colony on July 14 and 17, and the other colony did not swarm, though it worked diligently. On Sept. 1, I took from the one colony 132 pounds of comb honey, though the rest of them gathered about 45 pounds per colony for winter stores. I have them in a cellar, and so far they have done finely. Honey in this place brings a fair price, and there are only 6 colonies in the county. The bees get their honey from alfalfa and the wild flowers of the valley, which are plentiful, and very rich in nectar. It would be impossible for me to do without the AMERICAN BEE JOURNAL, as it is a true friend to the bee-keeper, and also a guide to success.

Very Mild Winter.—Mr. Abe Hoke, Union City, Ind., on Jan. 27, 1889, writes :

Bees have done nothing for the past two or three years ; but the last year was the worst that I have seen since using frame hives. They gathered honey for a few days in June, then everything was at a standstill. I had two natural swarms, and the entire increase from 21 colonies was 4. I had to feed the bees last fall, and I have no doubt that some of them will starve before May, unless I feed more. We have had an unusually mild winter so far ; the coldest being 6° above zero. At present we have 6 inches of snow, and the mercury was at 30° above zero at 3 o'clock this afternoon.

Bees Doing Well.—F. N. Johnson, Knoxville, Ills., on Jan. 27, 1889, says :

Bees are doing well. We had a poor season last year. I have kept bees for a number of years, and, like all other bee-keepers, I have had some ups and downs. I have used several styles of hives, but I have settled down to a double chaff-packing hive of my own. It takes nearly a square frame. I have not lost a colony of bees in it for six years. I anticipate a big crop of honey this year.

Report for Two Seasons.—Mr. W. Stont, Wilmington, Del., on Jan. 28, writes :

I got no surplus honey in 1887, and hardly enough to winter my bees ; what they did get was gathered too late to cap, and consequently it granulated in the hive. Not being strong colonies, and all old bees, with their vitality all worn out, they were unable to pull through. I lost about half of them. Last spring I commenced with 10 colonies in very poor condition, increased them to 18, and obtained about 300 pounds of comb and extracted, about equally divided. They were put into winter quarters in better condition, both in bees and honey, than I have ever had them, I believe.

Bee-Keepers are Jubilant.—J. M. Young, Rock Bluffs, Nebr., on Jan. 28, 1889, says :

The weather in eastern Nebraska, has been very mild and summer-like so far this winter. The mercury has been to zero but once or twice, and only for a short time. Bee-keepers are feeling jubilant over the fair prospects of wintering their bees with but little loss. My entire apiary is wintering in chaff hives ; every mild day the bees can be noted removing dead bees at the entrance of the hives, thereby insuring that the colony is in a healthy condition, and all is well within. The AMERICAN BEE JOURNAL is a weekly visitor to our fireside, and is fully up to the times.

Small Yield of Honey.—Abner Picket, Nassagaweya, Ont., on Jan. 28, 1889, writes :

I commenced the season of 1888 with 107 colonies of bees, a few colonies being weak, but by the time the honey season commenced nearly all were in good working order. I hoped and expected to receive a large yield of honey, but the bees got barely enough to keep up brood-rearing, until the time of the linden honey-flow. Alsike clover yielded but a bare living for the bees, and I had no surplus in the fall from fall flowers. What I have is 10 pounds per colony, and an increase of 22 colonies, for which I am thankful, as many in this county have not had any surplus or any increase, and had to feed to keep their bees from starving.

Bees Wintering Splendidly.—W. H. Fowler, Jennings, Mich., on Jan. 28, 1889, says :

My bees are wintering splendidly. I bought 2 colonies last spring. I had no increase, and only 50 pounds of surplus honey in sections. I did not get a chance to use the extractor, but I robbed each colony of one frame, just to try it.

Foundation Made on Molds.—J. L. Haworth, Quaker Hill, Ind., on Jan. 24, 1889, writes :

I commenced the season of 1888 with 16 colonies of bees, some of which were weak. I increased them to 24 good colonies, and secured 115 pounds of comb honey, and 820 pounds of extracted. Nearly 700 pounds of it was gathered in the fall. It was very thick, and almost as white as the best white clover honey. I procured one of the "foundation molds" last spring, and made very good heavy foundation with it, but I failed to make any thin enough for the sections. The bees seem to work on it just as well as on Dadant's foundation. My apiary is situated three miles east of Georgetown, Ills. I shall move my bees the coming spring ; they are in the cellar now.

Japanese Buckwheat, etc.—T. R. Canady, Roark, Mo., on Jan. 23, says :

I commenced with 12 colonies in 1888, increased them to 24, and obtained 75 pounds of nice comb honey, and 100 pounds of extracted. Comb honey in one-pound boxes sells for 15 cents per pound ; extracted at 10 cents per pound. I had to feed 175 pounds of granulated sugar to winter my bees on, so I did not get any more honey than I fed sugar. Bees are wintering well so far. The winter is very mild, and bees fly almost every day. They just had a picnic to day in the sunshine. The prospects are good for next season. I sowed 6 pounds of Japanese buckwheat, and harvested 5¼ bushels of the grain. I think that it is the best buckwheat that was ever introduced into this country.

Bees Packed for Winter.—J. E. Turner, Woodington, O., on Jan. 19, says :

I began bee-keeping in the spring of 1888, with 1 colony of bees, which I increased to 4 by natural swarming, and caught 1 swarm, making 5. I put them into winter quarters during the latter part of October, by packing them with chaff, in cases 4 inches larger all around than the hives. I think that they are wintering well. My surplus was about 50 pounds, principally white clover honey. The prospect for next year is very good.

No Danger of Over-Production.—J. M. A. Miller, Galva, Ills., on Jan. 24, 1889, says :

My report for 1888 is 40 pounds of comb honey from 48 colonies, with 7 colonies that had to be fed to keep them alive. This is not very encouraging, but I hope for better days. I keep my bees in the cellar, and they seem to be all right ; with this warm winter, I think that they would do well on the summer stands. If we do not get more honey soon, there will be no danger of an over-production of honey.

Good Results—Sterile Queen.—Jos. E. Stoner, Atlantic, Iowa, on Jan. 24, 1889, writes :

I commenced the spring of 1887 with 5 colonies in old boxes, for which I paid $3 each. I transferred them to Simplicity hives, increased them to 14 colonies, and took 150 pounds of comb honey, worth 15 cents per pound. I commenced in 1888 with 12 colonies, increased them to 16, and took 550 pounds of honey—and now old bee-keepers say that the last two years were the poorest on record.

I put my bees into a cave on Dec. 10. I took off the cap, put on one section-case, put in the slatted honey-board, one thickness of thin cloth, and filled it with fine oats-chaff, leaving the cap off, and I will not put it on again until the bees are ready to be put on the summer stands. This I think is as good a way to ventilate a hive, and at the same time retain the heat of a colony as any I have read of on the ventilation of the bee-hive.

I had one colony with a queen that was sterile. After keeping her four weeks, and finding that she would not deposit any eggs, I destroyed her, and not having any queen to replace her, I gave them eggs from which they reared a queen ; but it was too late in the fall for her to become fertilized, as there were no drones. Will she become fertilized next spring, and go on performing the duty of brood-rearing the same as any queen ?

[No. In order to save that colony, you will have to give it a fertile queen as early as possible in the spring, even if you have to take it from another colony.—ED.]

Caught a Runaway Swarm.—S. E. Wescott, Oxford, N. Y., on Jan. 21, 1889, writes:

I caught a swarm of runaway Italian bees on July 2, 1888, and hived them in a Langstroth hive on strips of foundation. It was a large swarm, and I expected them to get enough honey to winter on, but they did not. On Oct. 4 they had 9 pounds of honey. Up to this time they had been at the place where I was working. I then moved them home, and fed them 13 pounds of sugar made into syrup. When I examined them I found them nearly one-half black bees. Will some one state a good reason for this? The queen is well striped, and so were all that came with here. They seem to be wintering well, and are in good condition.

Laying Workers.—John B. Avery, of Stittville, N. Y., writes:

Last summer I had a colony with laying workers. It being my first experience with them, I was puzzled as to how to get rid of them. I had read that it was a hard matter to get them to accept a queen as long as there were laying workers in the hive. (They had been at work for some time, for the drones were hatching, and they had 6 frames of eggs and brood. A goodly part of the brood was sealed.) Having a laying queen on hand, I thought that I would experiment with them. I did not divide the colony, as Mr. Beckly did (see page 42), but I took away all their brood and eggs, and then shook them all in front of a new hive, filled with empty combs, and placed it on the old stand. It worked well. The queen commenced laying at once, and that was the last of the laying workers.

Bee-Keeping in Nebraska.—Ira N. Lyman, St. Peter, Nebr., on Jan. 14, 1889, writes:

We have some large apiaries in this (Cedar) and adjoining counties. One man in this county, in a good place near the Missouri river, has had bees a great many years, and has hives of almost every pattern, and if any one wants to see the old fashioned bee-gum, or hollow log, used to put bees in, he can see it there now. He built a new bee-house last spring, with a good shingle roof, in an angle like an old-fashioned rail fence. It backs toward the northwest, and is open on the southeast. He has two rows of hives, one above another.

I put my bees into the cellar under a kitchen. It is a good, dry, warm cellar. No vegetables freeze in it. I put the bees into the cellar on Nov. 28, 1888. They were flying on Nov. 27, when it turned colder. I thought that I would put them into the cellar before it got too cold.

I weighed the bee-hives this year, when I put them into the cellar, with the covers on, as they stood on the summer stands. One weighed 68 pounds. One of my new colonies came out on Aug. 29. It was a second swarm. One colony weighed 90 pounds. It was the first swarm out of the same old colony. The old colony that it came out of, weighed 80 pounds; another 62 pounds, and one 86 pounds, with about 20 pounds off for top covers. They are in 10 frame Langstroth hives. Bees carried in pollen as late as Oct. 14—very late for this part of the country. I introduced an Italian queen into a weak, queenless colony on June 24, 1888, and from that colony I received my 2 new swarms. I think that is good for last year. Colonies all entered the cellar last fall in good condition, save one. It took drones in with them. I fear they have no queen. I did not examine them as I should have done.

Bee-Keeping in Arkansas.—J. A. King, Sub Rosa, Ark., on Jan. 14, 1889, writes:

So far the winter in this part of Arkansas has been very mild and favorable for the wintering of bees. We have had no snow, and the temperature has not been lower than about 20°, Fahr. I began last spring with 24 colonies of bees, increased them to 38, and obtained an average of about 60 pounds of extracted honey per colony, which is about a fair average for this locality. The majority of bees in this neighborhood are blacks, managed after the fashion of "good auld times," and have hardly stored enough to keep "the wolf" from their own door. I have the only Italian bees that are kept in the immediate vicinity.

A great many bee-keepers here "know it all," in their own estimation, and would have the "king" to "boss," and the drones to lay the eggs, and prefer the old "gum" to any style of "hive." I am well pleased with the BEE JOURNAL, and wish it a long and prosperous career. Bee-keeping, in its more approved form, is slowly gaining a foothold in this State. Other industries seem to consume all the time, and those engaged in bee-keeping are content to follow on in the tracks their grandfathers left in this art. Although we have never heard the mention of cotton, it seems to be about our most profitable honey-plant.

Wintering in a Bee-House.—Mr. Joseph Hillman, Galesburg, Ills., on Jan. 26, 1889, says:

I have 70 colonies of bees wintering nicely in a house built for the purpose, with double walls, and filled in with sawdust. I could not do without the AMERICAN BEE JOURNAL.

Bee-Keeping in Colorado.—R. C. Aikin, of Holyoke, Colo., on Jan. 19, 1889, writes thus:

I am now a resident of Colorado, but lived the past 15 years at Shambaugh, Iowa. The summer of 1887 was poor, but I made some increase of colonies, and got a few pounds of surplus honey, and by averaging stores, the bees had barely enough to winter on. I put 46 colonies into the cellar in the fall of 1887, and in the spring of 1888 I had 35 to start with. I increased them to 50 colonies, and obtained 2,000 pounds of mostly extracted honey, from heart's ease. The best yield of one colony was 116 pounds; the average yield, spring count, being 57 pounds. The honey was all of fine quality. I sold 1,000 pounds in Iowa, at whole-sale, the extracted at 10 cents, and the comb honey at 12½ cents. I brought 1,000 pounds to Colorado, and I am retailing it at 15 to 25 cents. I am now in a very new county, being only three years since the first settler came into it.

There is not a tree for miles and miles, and not much else but buffalo grass; but I am here to try the bee-business in connection with poultry on a quarter section of government land. I brought with me from Iowa 20 colonies of bees, and I now have them safely housed in a good cave. My best average yield in Iowa was 227 pounds per colony; the poorest, 0—the latter only one year; while my average for the past ten years was close to 100 pounds per colony, spring count. The desire to possess some real estate, and not being able to buy in Iowa, has brought me here. I am the first to embark in the bee business in this part of Colorado; and while I do not expect the yields I had in Iowa, yet, being the only apiary for many miles around, and with good prices, I hope to succeed.

Report for Two Years.—James Jardine, Ashland, Nebr., on Jan. 14, writes:

I have not done very well with my bees for the last two years. In 1887 I had over 100 colonies, and they did not make any more than a living till the basswood came into bloom; that helped them some until the dry weather set in, and then they had a hard time of it to store a very little in the sections. I did not get more than 100 pounds in all. They were put into winter quarters, the most of them with plenty of honey, but I do not think that it was very good honey; at least my bees did not winter well on it, and when I took them out on April 9, I found 15 colonies dead, that had the diarrhea very badly. Some of the other colonies were in very bad condition, and they dwindled down very low, till the warm weather came, then they did better.

I had but a few swarms in 1888, but got about 1,000 pounds of good honey in the comb, fit for market, which I sell at home this year for 25 cents per pound. I put 80 colonies into the bee-cellar on Nov. 20, 1888; all were in pretty good condition for winter, and they seem to be doing nicely so far. The temperature is at 42° to 45°.

I hope that we will have better honey seasons for some time hereafter, for if I had depended upon my bees for a living the last two years, it would have been rather slim living. I was very sorry that I could not attend our State bee-convention. I have had the rheumatism for a month or so, but I am getting better.

Carniolan Bees.—F. H. Harrington, Hartwick, N. Y., asks the following:

1. Are Carniolan and Caucasian bees the same? 2. Can Carniolans fly at a lower temperature than Italians? 3. Are they more willing to enter supers for storing comb honey than Italians? 4. Would a Carniolan queen mated with an Italian drone produce workers superior to pure Italians, for comb honey and wintering on summer stands in a cold climate?

At our request, S. W. Morrison, M. D., answers as follows:

1. Carniolans and Caucasians are certainly very different bees, if I may judge the Caucasians from the only person I can find who has written of them. Carniolans are very gentle, unsurpassed as workers, splendid defenders of their stores against robbers, not disposed to rob, *not made cross by smoke, and do not build more queen cells than Italians.* They are of a dark gray color, *not "orange like,"* not long and slim," not *given to swarming more than Italians.* The reverse of the italicized lines will describe Caucasians.

2. While I had both Italians and Carniolans together in my apiary I could have demonstrated on any morning during the honey season, to any visitor, the fact that Carniolans are always at work in the morning before Italians, and especially is this true and noticeable in cold mornings.

3. When honey is abundant I do not claim that Carniolans will go into boxes more readily than Italians; but during a season like the past one, many persons have written me, who had both races, that they got surplus only from Carniolans. New swarms will begin storing in boxes within three days, invariably, if properly treated.

4. Carniolan queens mated with Italians sometimes produce workers which are very irritable, but not as frequently as do black queens mated with Italian drones. I have seen some very fine workers from the "mixing," but desiring only purely mated queens in my apiary, I did not keep them. No race is superior to Carniolans for wintering.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 50	1 40
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Cook's Manual (**old edition**)	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

Honey and Beeswax Market.

SAN FRANCISCO.

HONEY.—White comb, 10@11½c.; dark, 6½@8c. White extracted, 6½c.; light amber, 5¾@6c.; dark amber, 4½@5½c.
BEESWAX.—18@22c.
Jan. 25. O. B. SMITH & CO., 423 Front St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 17@18c.; best 2-lbs., 16@17c. Extracted, 8@9c. The trade is dull.
Jan. 19. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 16@18c. Supply is not large, but about equal to the demand. Market will be bare of comb honey long before the new crop is ready.
BEESWAX.—22@23c.
Jan. 18. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 16@17c.; 2-lbs., 14@15c. Good dark 1-lbs., 13@14c.; 2-lbs., 12@13c. Buckwheat 1-lbs., 1?@14c; 2-lbs., 11@11½c.—Extracted, 6½@8½c, depending upon quality and style of package. Market dull and stock sells slowly.
BEESWAX.—22c.
Jan. 24. S. T. FISH & CO., 189 S. Water St.

ST. LOUIS.

HONEY.—Choice white clover comb, 13@15c.; fair 11@12c.; dark 8@10c. Extracted, dark, in barrels, 5@5½c; choice, 5½@6c.; in cans, 6@7½c. Market is quiet but steady.
BEESWAX.—20c. for prime.
Jan. 17. D. G. TUTT & CO., Commercial St.

CHICAGO.

HONEY.—Best 1-lbs., 17@18c. Extracted, 7@9c. for best quality, according to body, flavor and style of package. Trade is limited to local consumption. All grades of comb honey are slow at lower figures than given above. But few will buy dark comb.
BEESWAX.—22c. R. A. BURNETT,
Jan. 17. 181 South Water St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 15@16c.; 2-lbs., 14@15c.; fair 1-lbs., 12@14c. Extracted, white, in kegs and ½-barrels, 8½@9c.; amber in same, 7½@8c.; in pails and tin, white, 9½@10c; in barrels and ½ barrels, dark, 5½@6c. Market dull. The very best sells slowly, and inferior qualities are neglected very much. Damaged, broken and leaky comb honey not wanted
BEESWAX.—22@23c.
Jan. 10. A. V. BISHOP, 142 W. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@16c. Demand slow, with a smaller supply than ever at this season for the past 10 years.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Jan. 9. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—White 1-lbs., 16c.; fall, 14c.; California 1-lbs. 16c.; white 2-lbs., 14c.; extra 2-lbs., 13c. Extracted, white California, 8c.; amber, 7c. Market dull.
BEESWAX.—20@22c.
Jan. 22. CLEMONS, CLOON & CO., cor 4th & Walnut.

KANSAS CITY.

HONEY.—Choice 1-pounds, 15@16c.; dark 1-lbs. 12c.; 2-lbs., 14c.; dark, 11c. White extracted in 60-lb. cans, 8c.; amber, 7c.; in barrels and kegs, 5@8c. Demand good, prices steady, and stock large.
BEESWAX.—None in market.
Jan. 4. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—White, in 1-lb. sections, 15@16c. Extracted, 9@10c.
BEESWAX.—20c.
Jan. 1. J. M. CLARK & CO., 1409 Fifteenth St.

NEW YORK.

HONEY.—We quote: Faocy white 1-lbs., 14@15c.; 2-lbs., 12c Fair white 1-lbs., 14@15c.; 2-lbs., 10 to 11c. Buckwheat 1-lbs, 10@11c.; 2-lbs, 9@10c. Extracted white, 7½@8c.; dark buckwheat, 6@6½c. which is in good demand. Market dull, except for extracted buckwheat; for all other kinds it is quiet, owing to unseasonable weather we believe
HILDRETH BROS. & SEGELKEN,
Jan. 10. 28 & 30 W. Broadway, near Duane St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½ cents; amber, 6c. Comb, white 1-lbs, 13@14c.; 2-lbs., 13c.; amber, 10@11c. Demand is of a jobbing nature, and arrivals are small.
BEESWAX.—19@20c.
SCHACHT, LEMCKE & STEINER,
Jan. 8. 16 & 18 Drumm St.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Feb. 16, 1889. No. 7.

EDITORIAL BUZZINGS.

To Cure a Cough, roast a lemon very carefully without burning it; when it is thuroughly hot, cut and squeeze into a cup upon one-quarter of a pound of extracted honey. Take a tea-spoonful whenever the cough is troublesome.

A Fine Photograph of the exhibit of J. P. Caldwell, of San Marcos, Texas, is on our desk. It shows his bee and honey exhibit at the International Fair and Exhibition at San Antonio, Texas, from Nov. 13 to 22, 1888. It must have been a great attraction.

A Frame Lifter is received from B. E. Foster, of Utica, N. Y. It is made of the best spring-steel wire forming a semi-circle; the ends of the wires form a kind of tweezers which hold the frame securely near each end, and it is lifted with the wire bow-handle.

Farmers' Institute.—The Newaygo County, Mich., Farmers' and Bee-Keepers' Association will hold their annual institute at Fremont, Michigan, on next Tuesday and Wednesday, Feb. 19 and 20, 1889. In the programme we notice the following: "The adaptability of bee-keeping for the farmer," an essay by A. M. Alton. Mr. Geo. E. Hilton is the Secretary.

The Tenth annual meeting of the Ontario Agricultural and Experimental Union, at the Ontario Agricultural College, was held at Guelph, on the 7th and 8th inst. By the programme we notice that Mr. R. F. Holtermann, an ex-President of the Union, is to deliver an address on "Bee-Keeping as a Branch of Agriculture," in the afternoon session of Thursday.

Another Lie Hunted Down.—Mr. L. W. Baldwin, of Independence, Mo., on Feb. 4, 1889, writes as follows:

A few days ago, while taking orders for comb honey in Kansas City, the proprietor of a store wanted to know if it was pure or manufactured. I told him that all comb honey was pure, as it was impossible to make the comb and fill it and seal it over. He said he *knew* they did it, for he *had seen them doing it.*

I told him that I did not like to dispute a man's word, but I was very sure he was mistaken, and if he would give me the address of the firm, I would prove to him that there was nothing in it. The man that is said to make the comb honey is D. B. Scully, Lake St., Chicago, one of the largest syrup dealers in the city. Now, Mr. Editor, if you will call there and see what there is in it, you will confer a favor on a honey-producer, and a store-keeper who is deceived by the lie of Prof. Wiley.

Of course the hunt turns out as usual. We went to the place indicated, and found a large wholesale and retail syrup and jelly house. Mr. D. B. Scully was not in, but his brother was found. After asking many questions about honey, syrup, jelly, etc., we inquired what honey they dealt in, and ascertained that they obtained their honey from California by the car load—that it was extracted honey, and that they did NOT DEAL IN COMB HONEY AT ALL! They had not a pound of comb honey in stock, and never thought of such a thing as making it themselves!!

Mr. Baldwin can, therefore, inform the Kansas City merchant that he was totally mistaken in this matter—notwithstanding his boast that he *knew* that honey-comb was manufactured, and that he had *seen it done!!*

Press him to name the place or back down; show him Prof. Wiley's retraction as published in the BEE JOURNAL for June 13, 1888, on page 388, where the Professor acknowledged that he "did not believe that it was possible commercially to imitate the comb!!" Tell him that a thousand dollars await *the proof* of the manufacture of comb honey, offered by Bro. A. I. Root!

Every bee-keeper should appoint himself a committee of one to hunt down these *lies* about manufactured honey; and in doing so, will find the hearty approval of all honest men. Apologists for such infamies should hide their heads in shame, for they will certainly be crushed by the triumphant car of truth and justice, as it moves on to victory!

The Mating of Queens.—J. B., of Missouri, asks the following questions:

The queen-bee flies out to mate; is it impossible for her to mate in the hive? Does she not leave the hive by a law of nature, that she may not mate with her own family? If so, if that necessity is obviated, can she not be bred to mate in the hive? I read several bee-papers and books, but I have never seen anything touching on this.

No. It is natural for a queen to mate on on the wing, and not in the hive. It is quite unlikely that fertilization in confinement will ever be successful, even though it may be very desirable on some grounds.

Honey as a Cure for Colds.—In the December number of the *Revue Internationale*, of Nyon, Switzerland, is a recipe for the use of honey as a medicine, which Mr. Charles Dadant has translated for the AMERICAN BEE JOURNAL. At his request it will be added to the next edition of the pamphlet, "Honey as Food and Medicine." Mr. Dadant adds: "I have used this recipe in similar circumstances." Here is the recipe:

A few years ago I got a serious cold; difficulty in breathing, pain about the sides, frequent shivers, etc. Dr. Stroehlin, one of our medical celebrities, prescribed tea of ground ivy as medicine, and milk as beverage, both sweetened with honey instead of sugar. After two days, I was completely cured.

This method, which is very simple, would not please those who spend hundreds of thousands of dollars to advertise their medicines. But, when sick, we take what we know, especially when it is cheap and salutary, with less reluctance than these pharmaceutic preparations, whose unknown manipulations are probably very little appetizing, and which too often act only on our pocket-books.—M. DESQUARTIERS.

Mr. Charles Dadant adds this paragraph to the foregoing:

FRIEND NEWMAN:—You may add that ground ivy, which is a labiate, or of the same family as the sage, is a very small plant, will grow everywhere, and is very good for bees. There is an illustration of it in our book (Langstroth Revised) on page 389. Fig. 138.

Sub-Earth Ventilators.—In regard to these ventilators in bee-cellars, P. H. Elwood says in *Gleanings:*

If properly put down they are beneficial. They keep a more uniform temperature. At one time, when the temperature outside was 17° below zero, the air as it entered the cellar was 37° above. Our sub-earth ventilator is made of glazed sewer-pipe, one foot in diameter for the first hundred feet; for the second hundred feet, 8 inches in diameter. At the end of the 12-inch pipe is an opening, to be used in moderate weather; but in cold weather the whole length of the pipe is used. The joints of the pipe should be securely cemented to keep out the ground air, which is usually loaded with moisture, and heavily charged with carbonic-acid gas. The last is very variable, however. Were I to put down another ventilator I should use 6 inch pipe, as being easier to make tight, and multiply them for capacity; also, if possible, I would have them extend in different directions, as the direction of the wind makes a difference in the draft of the pipe. I would also have one or more of them so laid as to act as drains in case of a freshet. Ours is so put down, and last spring it was used to nearly its full capacity.

A Club Agent down East has taken club subscriptions for papers, gathered in several hundreds of dollars, and then "lit out" with the money. Several subscribers for the AMERICAN BEE JOURNAL sent him their renewals, and lost all the money sent him. This should be a warning to all to send their money direct to this office, unless they personally know the club agent to be responsible. Do not give it to the Postmaster and ask him to send it, but send it yourselves, and save perplexity, annoyance and loss.

GLEANS OF NEWS.

The Evil Effects of Booming.—Mr. Alexander Black, of Sonya, Ont., wrote as follows on Jan. 2, 1889:

I send you an item clipped from the *Farm and Fireside* of Toronto, entitled "Do Bees Pay?" and I would like to know what you think of such a report. I consider such an increase and yield of honey utterly impossible, and I also think that such reports are not calculated to do bee-keepers any good, and may do others much harm, as it will make a great many rush into bee-keeping who know nothing about the business, and make a total failure in it.

Just think of a man making over $120 from every colony he has in the spring, why should not everybody go into the business?

I am in the business, and have studied it for years, and believe that my bees have done as well as the most bees did last season; they increased from 7 colonies in the spring to 17 in the fall, and I got 150 pounds of honey. Of course the increase cost me lots of honey; but it was bees I worked for, and my 17 colonies were put into the cellar in first-class condition, and are wintering well without any signs of disease so far.

I am looking forward to better success next season. We have a fine, mild winter; have had no really cold weather yet. I am pleased with the BEE JOURNAL every week. Long may it flourish.

The item enclosed by Mr. Alexander Black reads as follows:

DO BEES PAY?—The following communication from Byron Iiams, of Worcester, Mo., will be of interest as showing a bee-keeper's actual expense account and profits:

I commenced the season of 1888 with 3 colonies of Italian bees, using Langstroth hives with movable frames. The bees had plenty of honey to stimulate active increase. Plenty of honey came in all through the season for fast breeding, and for building up strong colonies, ready for the grand flow of honey which commenced with Aug. 15, and practically closed Oct. 1. With the use of 200 empty combs, I increased my 3 colonies to 27. I worked 1 colony for queen-rearing, 3 colonies for comb honey, and 21 colonies for extracted honey. I sold 2 colonies. The results were:

2,400 lbs. extracted honey at 10c.	$240.00
100 lbs. comb honey at 15c.	15.00
Two colonies sold	5.00
25 colonies left, worth	150.00
Total	$410.00
Deduct 3 colonies on hand to begin with, worth	$ 18.00
21 hives at $1.50	31.50
Total expense	$ 49.00
Net profit	$360.50

It is a very fabulous report, to say the least, not only viewed from the standpoint of increase, but also of sale. The 2 colonies sold brought only $2.50 each, only one dollar more than the cost of the hives, but the 25 colonies left are valued at double that price. Extracted honey, at wholesale, bringing 10 cents per pound by the barrel, is not to be despised!

Mr. Iiams was taking the BEE JOURNAL some three years ago, but as he is owing for over a year's subscription, he will be well able to pay it now from his bonanza bees.

Queens and Swarms.—Mr. Albert Vought, Illawara, La., on Jan. 26, writes:

I feel fully repaid for this year's subscription, by Dr. Tinker's article on page 25. I had about decided to manage my bees something after that style, and at the same time accomplish my transferring, but I would ask Dr. Tinker, what becomes of the young queens? or does the old one always leave the hive before the young one hatches? Of course, in my case, where increase is wanted, it is all right. I understand how to manage them before they hatch.

The answer by Dr. G. L. Tinker, of New Philadelphia, O., is as follows:

When a colony of bees casts a swarm, and is managed as advised, it is not usual for the young queens to appear before the eighth day after, and second swarms cannot occur. Upon removing the brood and shaking off the bees, it will be seen if any of the queen-cells are sealed over, when we shall know that if it is placed over a wood-zinc honey-board in the super of another colony, the cells will hatch about the eighth day after.

If now the apiarist is not on hand to attend to the cells, the first queen to hatch will destroy the remaining cells very soon. From this time on until she is ready to mate, or about 4 or 5 days thereafter, she will be found nearly all the time on the honey-board, trying to get below. Upon raising the super, she will be seen at once, and undisturbed by the light, her efforts to get through the zinc are unabated. Hence, she may be readily removed, or the honey-board may be turned over and the young queen be allowed to kill the old one, which, so far in every case with me, she is certain to do. But if the young queen be left in the super until after the eleventh day, or until she is ready to mate, the bees will, for some cause, ball and kill her, and that is the end of all queens hatched in supers *left to themselves* above a wood zinc honey-board, except as stated in next to the last paragraph at the foot of the third column, on page 26.

It is therefore for the apiarist to determine what shall become of the young queens.

Although the young queens will destroy the old ones, as a rule, as stated, still I believe that it is better to remove the old one, if it is desired to supersede her, and then let the young queen have full away, as it seems probable that exceptions will be found to this rule, in which the young queen, after destroying the old one, may herself be balled and killed. At all events, contests between queens should be prevented as far as possible. Transferring by the new system is a decided success, as I transferred a number of colonies in this way last summer.

Wasteful Ignorance.—A correspondent in the Orange Judd *Farmer* of last week thus mentions a case of loss of honey and bees needlessly, through ignorance in the bee-keeper of the simple methods of bee-keeping. He says:

While traveling in central Illinois the past week, I met a bee-keeper living in a locality near a stream, and where heart's-ease was abundant in the fall. He told me that bees there never stored any honey except from clover, and that they wintered very badly—frequently the loss was 30 out of 50 colonies.

I asked him if he ever used an extractor, and he said he did not know what it was.

I then asked him if he ever gave the queen room to lay after the flow from clover was over. He replied that he never disturbed them until cold weather, when he removed the surplus honey.

Now, this man, by not being posted, was losing half or more of his crop, and three-fifths of his bees in winter. He should procure and use an extractor, or take out some of the frames of sealed honey, and replace them with empty worker combs after the flow from clover was over, feeding, if necessary, so the queen may continue breeding, and giving her more room every few days, to insure that there would be lots of young bees in the hive the latter days of August, when the fields of heart's-ease or buckheart begin to bloom. He would thus secure a crop of fall honey, and lots of strong young bees to go through the winter.

An Omission.—Mr. R. McKnight, of Owen Sound, Ont., on Feb. 4, 1889, writes as follows:

In the report of the Ontario Bee-Keepers' Association meeting, as published in the AMERICAN BEE JOURNAL of the 2nd inst., I notice a sentence in Mr. Pettit's essay which was omitted at the meeting at which it was read, but has since been given to the world through the AMERICAN BEE JOURNAL and the *Honey Producer*. This "missing link" is a harmless piece of irony. It reads as follows: "Who in the present age is bold enough to assert that Mr. McKnight is not an original and profound thinker?"

Mr. McKnight himself disclaims any pretentions to either originality or profundity, and does not believe that the world credits him with being either original or profound. Moreover he did not then nor does he now care what Mr. Pettit may say or think of him; but Mr. McKnight does think it rather strange that Mr. Holtermann should cause to be *published* what he was evidently ashamed to *read* before the members of the association. Mr. Pettit's essay was read from a proof-sheet by Mr. Holtermann, and it included the sentence quoted above, but the pen was drawn through it, and it was "skipped" by Mr. Holtermann in the reading.

I was not a little amused when a gentleman present passed the proof-sheet over to me, and drew my attention to the erasure! What I complain of, is the want of candor manifested by Mr. Holtermann in his reports generally. I could give many instances of this, but one will suffice: At our annual meeting a year ago, one of the best essays was contributed by Mr. Allen Pringle; yet this correspondent and editor suppressed it in his report of that meeting as published in the *Honey Producer*. There must be something radically wrong in an editor who, because of personal pique, will deprive his readers of valuable information.

In the "copy" sent to us for publication, the sentence in Mr. Pettit's essay above referred to was not erased—probably by an oversight. Concerning the omission of Mr. Pringle's essay in the report of the convention of 1888, Mr. Holtermann wrote to us (before we received the above letter) that he was not aware of its absence until a few days ago; that it was purely an oversight which he much regretted.

The Hanging Gardens of Babylon were within the precincts of the palace called "The Admiration of Mankind." They consisted of gardens of trees and flowers on the topmost of a series of arches 75 feet high, and built in the form of a square, each side of which measured 400 Greek feet. The city of Babylon, with its famous gardens, was razed to its foundation 600 B. C. Two thousand five hundred and seventy-nine years later we find the celebrated gardens of James Vick, in Rochester, New York. For description, catalogue of seeds, advice how to obtain free a copy of Vick's Foral Guide, and also of the famous new rose, called "Vick's Caprice," address, James Vick, Seedsman, Rochester, N. Y.

QUERIES & REPLIES.

Amount of Stores Used by Bees in the Cellar.

Written for the American Bee Journal

Query 613.—1. If it is a fact, as is generally claimed, that bees consume but about one-half as much honey in a good cellar that they do out-of-doors, is that not so much wasted? 2. If not, are there any other considerations to balance this loss?—Bee-Keeper.

1. Certainly.—A. B. MASON.

Yes, to a certain extent.—H. D. CUTTING.

It is a fact, by weight; that is, in a cold climate.—A. J. COOK.

I have had no experience with cellar wintering of bees here in Louisana.—P. L. VIALLON.

In our climate (Georgia) we have no use of bee-cellars, but winter our bees out-of-doors.—J. P. H.BROWN.

1. No, it is so much saved. 2. None that I know of.—R. L. TAYLOR.

1. No, it is not wasted. 2. Yes. brood-rearing early out-of-doors, especially in winters like the present.—DADANT & SON.

1. No. It is that much saved. 2. The considerations are a balance in favor of the cellar.—J. M. HAMBAUGH.

In an open winter like the present one up to date, bees consume scarcely more stores out-of-doors than in-doors, and winter better, as a rule.—JAMES HEDDON.

As far as I know, cellar-wintering of bees in this part of the country (Indiana) is not much practiced. Among my acquaintances, it has not been a success.—M. MAHIN.

1. Well, yes. 2. The first cost of constructing or preparing the cellar, and then the labor of placing the bees in the cellar and taking them out.—MRS. L. HARRISON.

1. No. 2. Sometimes a cellar is not convenient; and, with a great majority, bees can be properly packed for winter, and as safely upon the summer stands, with *less labor* than they can be carried to the cellar. Your query calls for an article, as there are many points which cannot be touched upon in this limited space.—W. M. BARNUM.

"This is the same old question," and the best we can say is, that "it all depends." As the pursuit has reached that point where bees must be handled by hivefuls and by the can full, there seems no way about it, but for keepers who live in cold latitudes, to store them in a cellar. We look for compensation in the harvest, not in how much they eat during the winter.—J. M. SHUCK.

Yes, I consider it a great waste of honey to winter bees out-of-doors. As a rule, bees wintered in a cellar do better the following season than those wintered out-doors. I know that many good bee-keepers will differ from me, but this is the conclusion that I have come to after wintering bees in both ways for more than 20 years.—C. H. DIBBERN.

I have a heap of ignorance on this subject. If my bees would make a "live" of it out-doors, I think that I would be willing to lose some extra honey. For one thing, they have better ventilation, and I am just old-fogy enough to believe that is very important.—C. C. MILLER.

The extra amount of honey consumed is used as fuel to keep the bees warm. Is the fuel you burn in your stove in keeping the house warm, wasted? If so, had you not better move down cellar with your family, so as to save it?—G. M. DOOLITTLE.

1. As a rule, the more quiet bees are kept, the less honey they will consume. In some years this can be done in cellars, as bees are ordinarily kept; in other years it can be best done out-of-doors. Claims are made for cellar wintering that apply to very cold localities, that would not hold good in warm situations.—J. E. POND.

1. I do not believe that it is a fact. The difference is not so great as one-half. Whatever the difference is, is certainly wasted, if the results are the same. 2. Having never tried but one method, I cannot speak with the confidence of him who has tried both. It is claimed by some that there is less spring dwindling, and better final results by wintering bees on the summer stands. Undoubtedly *climate* has a good deal to do with it. The bee-keeper ought to study the question from the stand-point of locality.—EUGENE SECOR.

1. The more honey my bees have in the brood-nest, the better they winter, and the better work they are able to do when the early honey harvest appears. Perhaps more bees are ruined on account of light stores in winter, than on any other account; therefore, the question of *waste* should not be put in the way of best results. 2. Many apiarists believe that bees are more hardy and long-lived when wintered out-of-doors.—G. W. DEMAREE.

1. Bees consume more honey when wintered on the summer stands, but the consumption would hardly reach to double the quantity, especially in winters like the present one, when cold weather must be of very short duration, if we have any worth mentioning. Honey used to keep the bees in the hive warm, should not be deemed *wasted*; wood or coal used to keep humanity warm in houses is never thought to be wasted—each serves the purpose intended. 2. Against the account for honey used "out-of-doors," place the cost of the cellar or bee-house, the trouble of carting in and out, etc. These would probably balance the account, and leave the choice of methods upon other considerations than value of the honey consumed.—THE EDITOR.

CORRESPONDENCE.

IN-BREEDING.

New Blood in the Apiary an Essential Matter.

Written for the American Bee Journal

BY EUGENE SECOR.

On page 60, in answer to the question, "How long will bees prosper without new stock from a distance?" I notice this reply: "For an unlimited time." Now I doubt the correctness of that doctrine; and, as I am not a queen-breeder, I ought to be allowed an opinion without prejudice.

With such "free commoners" as bees, it is quite a difficult matter to prove to what extent in-breeding is practiced, or with what effect; but if we reason by analogy — from the known to the unknown—it is very conclusive to my mind that nature abhors incestuous alliances.

We know the effect on the human race, of the marriage of near relatives. Any one who has experimented in that direction with our domestic animals, knows its baleful effects. I am aware of the claim in certain quarters, that some of the most valuable characteristics of our domestic animals have been developed by in-breeding, but even admitting that to be true in exceptional cases when done intelligently, every breeder knows it is safe to avoid it as a general rule.

The experiments of Darwin in self and cross fertilization of plants, carried on for many years with a patience and persistence that only a lover of the truth could have shown, proved that the same law governed, too, in the vegetable kingdom. He reasoned that the chief end of bees and other pollen-gathering insects was to fertilize and cross-fertilize the flowers, thereby causing not only greater beauty and perfection of flowers and fruit, but vigor and longevity as well.

Corn grown on one farm for a series of years without the introduction of new seeds, deteriorates. The same is

true of other farm crops. Now if such beneficial results accrue to both the animate and inanimate creations (where experiments have been carried on), who shall say that these highly organized insects, bees, that perform such an important part in developing plant-life by cross-fertilization, are not amenable to the same general law of nature, that seems to govern the reproduction of plant-life itself? Or if both the higher and lower forms of life are benefited by crossing, why not the intermediate?

It may be that this matter has been proved, substantiating the theory expressed; but if it has, I have never heard of it. I can conceive how difficult it would be to fully and satisfactorily verify either theory, in the present state of the art. If fertilization in confinement ever comes to be an established fact, we could proceed upon an intelligent basis to demonstrate the facts. Or, if we could take a single colony and isolate it 15 or 20 miles from all other bees, and limit their increase to 2 or 3 colonies, so that near relatives would be compelled to mate, a few years might throw light on the subject. But, few such places exist, and if they did, bees multiply with such rapidity that only a short time would elapse before the relation would be so distant that the probable harm would be reduced to a minimum. Perhaps that is what was meant by the answer given to the question. If so, our notions may not be so antagonistic as I at first thought.

But I believe in new blood. It seems to me that the history of modern bee-culture proves the desirability of infusing vigor into the apiary, by the introduction of distant and unrelated queens. I would not trust altogether to nature's methods, and compel the queen to fly to a neighboring apiary.

Forest City, Iowa.

IOWA.

Report of the Nashua Bee-Keepers' Convention.

Written for the American Bee Journal

BY H. L. ROUSE.

The third annual meeting of the Nashua Bee-Keepers' Association met in the Council Rooms at Nashua, Iowa, on Jan. 26, 1889, at 1 p.m., with President Tracy in the chair. The minutes of the last meeting were read and approved.

Wintering Bees in Cellars.

In discussing cellar-wintering of bees, Mr. Bird preferred upward ventilation, with the surrounding temperature at 45° to 47°. Others preferred a lower temperature, with scarcely any upward ventilation. A cellar with a living-room above was considered much better for the successful wintering of bees, than one having no fire over the bee-cellar.

"In what way can we best improve our bees?" Answer: It was decided that we should buy a few choice queens, and always exercise much care in breeding from our best bees.

"Would vegetables be detrimental to bees in the cellar?" It was thought not.

Next was the election of officers, which resulted as follows: President, Thos. Tracy; Vice-President, Geo. Stocks; and Secretary, H. L. Rouse.

"Is it desirable to have bees breed in the cellar?" Mr. Tracy would rather that his bees would not breed until after being put out in the spring. Others thought that a few frames of capped brood were a great advantage.

Mr. Stocks advocated facing hives to the north, as the bees would not be enticed out on chilly days. President Tracy puts his bees out of the cellar in the night. If the weather is favorable, he cleans his hives out on the second day after putting them out; and Mr. Potter cleans his hives out on the day he puts them out. Beginners should be very careful about overhauling bees in early spring.

H. L. Rouse then read the following essay on,

Bee-Keeping Alone, or with Other Pursuits.

Shall we make bee-keeping a speciality, or unite it with some other business? I believe that there are a few apiarists at the present day who make bee-keeping their sole business, but their number is small compared with the host that make it a side-issue. Let us consider the feasibility of the "specialty man" first.

Suppose he has invested all his capital in 100 colonies of bees, and fixtures to work them for either comb or extracted honey. If the season is good, and he has no opposition, he will secure a good crop of honey, and thereby make some money. If this continues long, his near neighbors will soon "catch on," and they will keep bees all around him, in which case they will spoil the specialty man's business, and gain nothing thereby themselves.

"But," says one man, "why not enact laws giving the first bee-keeper a certain amount of territory, or let priority of location rule?" I have grave doubts about this being a wise policy to adopt; besides, if the specialists were guarded by such a law, there is another and greater uncertainty to contend with, and that is, the failure of the honey crop from which nobody is secure. All bee-keepers will bear me out in this by their experience of 1887 and 1888.

On the other hand, I agree with Mr. Root, that "it is not best to put all our eggs into one basket." I will not say what other business is best to unite with bee-keeping, as so much depends upon how a man is situated, and also somewhat as to his tastes. To the bee-keeper living in the suburbs of cities, I would say, raise poultry, or he might find the raising of small fruit and garden-truck more profitable. To the bee-keeper on the farm, I have not much to say, as there are various ways open to him, in which he can turn an honest dollar.

In the meantime, do not neglect to give proper care to what bees you have. It would be "penny wise and pound foolish" to allow them to starve, when a few pounds of sugar syrup or honey would bring them through nicely.

I think that bee-keeping has reached "bed-rock." In fact I feel convinced that now is the best time to give bee-keeping our most careful attention. The past two or three failures in the honey crop have driven the slovenly and careless bee-keepers from our ranks. It is the same in our pursuit as it is in other lines of business—the man who is the most careful, prudent and thorough, will succeed the best, while the man who does things by halves will fail, no matter what occupation he follows. If a thing is worth doing at all, it is worth doing well.

The convention then adjourned.

H. L. ROUSE, *Sec.*

TOADS AND BEES.

Will Toads Destroy the Bees?—Experiments.

Written for the American Bee Journal

BY E. STRONG.

That toads will eat bees has often been asserted and never disputed; but the published proof has been wonderfully slim. The same can be said of the indictment against the king-bird. When a boy, I was offered five cents for each bird that I shot, the bee-keeper claiming that they eat the bees. This, father could not allow without proof. We *thought* that we found in the bird's stomach some pieces of the bees, and in some publication an article stated that the king-bird possessed a hard cushion on the top of the bill, placed there purposely to receive the sting of a bee and wasp. So, sentence was passed, to the great delight of the executioner but I never found any

sting in that cushion. Then what becomes of the sting? One powerful thrust of poison in the stomach or mouth of so small a bird would often produce death.

So, in after years, I had learned to doubt some of the things "even read in books," and, as a bee-keeper, "watched out" for Mr. Toad. But he had a bright eye to business, and was never off his guard. He looked pretty full, though, and suspicion was strong against him. Sometimes he was placed on the alighting-board and watched. In this position, he would pick up the flies, and never touch a bee. Yes, he knew better than to get stung. But the bee-papers harped away about toads, and I could not say they were wrong.

A medium-sized toad was placed in a nail-keg and put in the sun without food or water all day. At the cool twilight, he was tenderly placed on trial on the alighting-board. His game eye glittered with tears of joy; but his early education made him proof against temptation, and he was remanded to prison another night and day.

While standing on the alighting-board, a bee sent its sting into the tender membranes of the toad's foot, but the foot never stirred, and did not seem to feel pain, nor did it swell in the days to come.

Each night Mr. Toad was brought out for trial, for four days, with the same results. Hunger and the burning sun had reduced his size and health, but reptile and batrakian that he was, unlike a man, he showed his superiority to the low passions of resentment and hunger, and I let him go. Prof. Cook will easily see that in this respect, development has not improved the human race. Well, the decision of the court was, that toads had some good qualities, and, among the rest, they knew better than to swallow a *live* bee.

A year went by, and all the papers still howled toad! One wet day a toad crawled under a hive when it saw the bee-man approach. It looked guilty, and was promptly placed on the alighting-board. Four minutes went by—but without touching a bee. In the fifth minute it swallowed seven. The officer immediately nabbed that toad, and the ordinary methods of vivisection were applied, with the following result: Five stingers were found firmly imbedded in the coatings of the stomach, which was promptly mailed to our distinguished author on anything pertaining to the bee—Prof. Cook. But I never heard from him, and if the clerks from the Post-office threw it out, they did their duty.

Kalamazoo, Mich.

BASSWOOD.

The Challenge Accepted, and the Proof Furnished.

Written for the American Bee Journal
BY DR. A. B. MASON.

In the AMERICAN BEE JOURNAL for 1888, Mr. R. McKnight, in his inimitably eloquent and facetious way, pays me several compliments, and I enjoyed the article right well, as I do everything he writes. I enjoyed it not so much for what he said, as for the kindly way in which he said it, and were it not for the "challenge" he gave on page 791 of the AMERICAN BEE JOURNAL for 1887, I should be more than pleased to let the matter rest with his pleasant words and kind wishes. But were I to do so, it would be a tacit acknowledgement on my part, that I had made an assertion, to back which I had no proof. To be sure, it is some time since Mr. McKnight made his "challenge," but it is not too late to prove that I was right, and did not "misstate the facts."

On page 791 of the AMERICAN BEE JOURNAL for 1887, he says:

"Dr. Mason misstates the facts when he says that 'Canadians, in a Wiley way,' or any other way, either here or elsewhere, have sought to destroy confidence in the good qualities of American basswood honey, and claim superiority for their own. *I challenge him to name a solitary Canadian* (apart from Mr. Pettit) *who has made such a statement.* (Italics are mine.) 'One swallow does not make a summer,' nor one man a nation, and it is not generous on the Doctor's part to manifest such antipathy against his 'cousins across the border, and their relatives across the pond,' because one of our people holds and expresses opinions peculiar to himself, and in which his fellow countrymen do not sympathize."

To be sure, "one swallow does not make a summer, nor one man a nation," but if *two* did, the "summer" and the "nation" might be made, but there are four with which to make the "summer" and the "nation."

To be sure, three of "the swallows," or men, besides Mr. McKnight, Messrs. Pettit, Jones and Corneil, have not denied making the claim of superiority of Canadian over our linden honey, and Mr. Pettit has the manliness to "stick to his convictions." All honor to the man who does it. I doubt not that Messrs. Jones and Corneil would have done the same, if they had said anything, but what must we think of a man who makes such a claim, and then denies it? Well, I guess we shall have to think his memory was a little treacherous.

I was quite sure that I did *not* "misstate the facts," and to show that I did not, allow me to quote from a circular now lying before me, tens of thousands of which were distributed in Great Britain. The heading is as follows:

"The Bee-King and His Bees. From the *Pall Mall Budget*. A Chat about Canadian Bees." After speaking of "the exhibit of the Ontario Bee-Keepers' Association" at the Colonial Exhibition, it says:

"It has come over in charge of a deputation from the association, who are at present on a visit to this country with a view to open the English market to *the best honey in the world, as they constantly described* (italics are mine) the article which they have on view."

I believe the "deputation" consisted of Messrs. Pettit, Jones, Corneil and McKnight—three besides Mr. Pettit, and they among the most noted Canadian bee-keepers who "constantly describe" the Canadian honey as "the best honey in the world." To be sure, "one man don't make a nation," as Mr. McKnight says, but how is it about four doing it?

How does the above look by the side of Mr. McKnight's "challenge?" Now who is it that "misstates the facts?"

Near the close of the circular before referred to, the "deputation" says:

"We publish a weekly bee-journal, which keeps all our members well informed of the latest appliances for securing the maximum of yield, and the minimum of risk; and we think that all who visit our exhibit at the Colonies, will admit that for *colour, flavour, and specific gravity we throw all other honeys in the shade.*" (Italics are mine.) Don't "claim superiority for their own!" Haven't "sought to destroy confidence in the good qualities of American basswood honey, and claim superiority for their own!" Well, what *does* it mean then, I wonder?

In another place the "Budget," as quoted by the circular, says: "It was with peculiar interest that we bade Mr. Jones welcome as he entered our office with two other representatives (Messrs. Pettit and McKnight) of the Bee-Keepers' Association," etc.; and further says: "We claim to be located in the very heart of the honey-belt of the United States." Since when have the Canadians claimed "to be located" in the United States? Will some Canadian please make me a present of a map of Canada, showing whereabouts Ontario is located in the United States? I have some pretty good maps of the United States, but I do not find "Ontario" on any of them, and it seems a little strange that while claiming superiority for their honey over

that produced in the United States, that they should at the same time "claim to be located in the United States!"

In another place the "Budget" man asks the deputation, "What special advantages have you in Ontario beyond the United States?" "Chiefly in the linden trees. In the honey-belt of the United States of America, there is also less clover than we have, and the lindens are scarcer.....Our forests are full of linden trees, and the yield of honey is enormous. Even if you shake the tree, the honey drops upon you from above."

Is there no effort in this "in a wily way, or any other way....to destroy confidence in the good qualities of American basswood honey?" I wonder if Mr. McKnight wants to throw all the responsibility of claiming superiority for Canadian linden honey on Mr. Pettit.

I was not aware till I got "The Bee-King" circular, that Ontario was larger than the United States, but it must be so, I suppose, for the deputation say, that "in the honey-belt of the United States of America, there is also less clover than we have, and the lindens are scarcer." Whew!!! I didn't know that before. I guess that "fisheries commission" had better be empowered to change our northern boundary so that it will run across the continent on the 49th parallel, and so Ontario *will* be in the United States, and then we can get more clover and linden honey, and have some linden trees to shake honey from! What a paradise for lovers of honey; shake it from the trees; Apis Dorsata and Apis Americana are not needed.

Will not some Yankee invent a honey-catcher to be used under Ontario linden trees? If any one *does* invent such a machine, I think I shall be entitled to a half interest in it for the suggestion.

"Less clover honey than we have." *I-s* t-h-a-t s-o? "And the lindens are scarcer." How long have they been scarcer? No effort here "to destroy confidence....and claim superiority?"

In another place the "deputation," or the circular, says that Ontario produces a yearly "crop of honey valued at £100,000." According to the most reliable authorities, that is about one-thirtieth as much as is produced yearly in the United States. If such is the case, and Ontario has more lindens and clover than we have in the United States, the honey ought to drop from our linden and clover **without shaking.**

Less linden and clover than in Ontario, where the honey "drops upon you from above" when "you shake the tree," and still we get thirty times as much honey. Oh my! "it makes me tired" to think of it.

I believe that it would be a good idea to publish the whole circular in the AMERICAN BEE JOURNAL, for aside from a few mistakes about our honey and country, it is good reading, and shows how earnestly the deputation worked for the interest of the Ontario bee-keepers and the Bee-King. It seems a little strange that it was not published in the *Canadian Bee Journal*, with a statement as to about how many copies were distributed. I am sure that it is better and more interesting reading to me than much that was published about the Ontario bee-keepers' exhibit at the "Colonial."

Auburndale, O.

[A portion of the article from the *Pall Mall Budget* was published in the AMERICAN BEE JOURNAL for Nov. 3, 1886, and is illustrated on page 694. We hope this will satisfy all, and that this controversy will end here.—ED.]

QUEEN-REARING.

Method of Rearing Queens for an Apiary.

Written for the American Bee Journal
BY G. W. M'GUIRE.

In the advanced age of this wide, developing pursuit, but few ideas can be advanced that have not already been thought of; but the days of criticism are not over, therefore many are fearful to make public their theories, for fear of the ordeals of the thinking public. Perhaps nothing in the whole bee-industry has received more careful thought than queen-rearing.

First, we want an easy, practicable method, wherewith we can rear handsome, prolific, long-lived queens. In this latitude, about March 1, when bees begin to gather pollen, select the finest colony, that is, the one containing the finest queen; feed this colony about a pint daily, with a closed entrance-feeder. You should, by May 1, have them "boiling over" with bees, with thousands hatching daily, and drones a plenty.

Now put on an upper story with ten frames, filled with brood foundation, with a queen-excluding honey-board between. But before doing this, take out one outside frame, separate the others, and put a new frame of foundation in the centre. The frame taken out can be put in the upper story.

Let the upper story remain about five days. If the weather is favorable, the bees will be largely in the upper story, and have the foundation nicely drawn out. Now remove the lower story to a new stand, and place the upper one on the old stand.

Go to the old hive, take out the frame of foundation that was put in five days previous, and cut it full of oblong slits; it will have larvæ just hatched; exchange this for the old frame, and put it in the centre of the hive. At the end of ten days examine them, and if the bees belong to the yellow race, you may think of going into the "peanut business."

You can now form nuclei from the other colonies, and in 12 hours insert one of the queen-cells, until the number of cells are exhausted. The result will be large, yellow, long-lived queens.

In a week or so the queens will be mated, and laying. By this time the other colonies will begin to swarm; when one swarms, hive the swarm on a new stand, and go to one of the nuclei colonies that has a laying queen, remove her, and cage her in the old hive from which the swarm has just issued. In 24 hours she will be released and laying. You can now place a new queen-cell in the nucleus. By this method the old colonies are not queenless more than 24 hours at any time. If left to "nature's way," they would be at least 15 days without a laying queen; consequently a loss of 30,000 or 40,000 bees, and hence it is wasteful to allow bees their own habits, as far as bees or increase is concerned.

Dark Ridge, N. C.

INDIANA.

Report of the Indiana State Bee-Keepers' Convention.

Written for the Indiana Farmer
BY G. K. HUBBARD.

The ninth annual meeting of the Indiana State Bee-Keepers' Association convened at Indianapolis on Wednesday, Jan. 16, 1889, at 1 p.m., and was called to order by President E. H. Collins. Secretary George C. Thompson being absent, Mr. G. H. Hornbuckle filled the office.

Mr. J. M. Hicks was called to the chair, and Mr. E. H. Collins delivered the following:

President's Annual Address.

While the off years in apiculture are hurrying along with their weary days of labor and disappointment, we have three measurable compensations for our time and effort. The honey market is being cleared, and the number of producers lessened, while the bees remain healthy, and the colonies strong. At the same time our indi-

vidual and collective experience is broadening, as is also our knowledge of apiculture, and improving our methods of manipulation.

Why not prepare a good display at the State and county fairs, and make it a nucleus about which congenial minds may gather? Why not meet more often with our neighbors in their local societies, and even visit them in their homes?

All labor is elevating or degrading in its effects in proportion as it requires thought and skill to guide it. You may force a horse to draw you, or you may drive a pig from place to place; but he can only lead a bee and compel it to build its marvelous combs according to man's convenience, and fill them with the largest stores of the richest sweet, who has studied the law of its instinct, and has mastered the mysteries of the hive.

In bee-keeping, as in everything, "ignorance is the great sin," and research and tact have a most happy reward, while there is no greater pleasure than the study of entomology and the peculiar and fascinating habits of bees.

There is a very active evolution taking place in selecting the more desirable hive and fixtures. Amidst the chaos of inversion, horizontal section, fixed and loose frames and sections, tin, wood and wire-cloth separators, the result so far points to the open-sided one-piece one-pound section—4¼x4¼x1⅝ inches; also to wood for separators, and some form of section-case rather than wide frames. While amid the dust and smoke of hot discussion, we still see the Langstroth hive, or a modification of it, still holding sway.

Items of Interest.

If a hive-cover leaks, or if a hive be often removed or opened to admit light, the bees smoked or the combs disarranged, the queen removed or introduced, or the purpose of the bees repeatedly thwarted, especially during a honey-flow, they may become discouraged and neglect work, or even swarm out. Dr. Tinker, of Ohio, at the North American Bee-Association, gave a method of preventing increase without crossing the purpose or will of the colony.

Some careful experiments are being conducted by Prof. Cook and others on the practicability of planting for honey; on cellar wintering; ventilation; winter stores; queen-mating, etc. Mr. Demaree, of Kentucky, has been experimenting on warming the cellar every few weeks, to a temperature which permits the bees to break cluster for a few hours.

The Bee-Keepers' Union has been doing efficient work in defending the interests of apiculture, and should receive the support of bee-keepers.

At the North American Bee-Keepers' Society, last fall, new instruments of organization were adopted making it a representative body. This society might consider the propriety of appointing delegates.

There is one more subject which should claim the attention of this society, that is the apiarian exhibit at the State fair. Some years a few enterprising individuals have made creditable exhibits. In some States a committee has been appointed by State societies to co-operate with the State Board of Agriculture, and the result has sometimes been that a commodious house was built for the exhibit. We may expect but an inferior display unless some systematic effort is made to prepare for it.

After the President's address, Miss Eva Scholl presented an essay on "The the best method of obtaining straight comb."

Mr. G. K. Hubbard, of La Grange, then read an interesting essay on "Theoretical Apiarists," which will be published hereafter.

Second Swarms.

Mr. W. Mason was assigned this subject, and discussed it as follows:

"This is a mooted question, and I believe that races of bees have a great deal to do with the subject of increase. In preparing for the spring work, one of the main points is, to get ready for the honey harvest. In our spring work, increase is one of the essentials with a successful apiarist as a honey-producer, and to be that, I do not favor a hive with too large a brood-chamber, not larger than 2,000 or 2,400 cubic inches. In this I crowd the combs so as to take an extra comb over the usual manner of spacing, and when I have the brood-chamber full of bees and brood, I at once proceed to put on upper stories, either for comb or extracted honey, as one of the methods to prevent too over-crowded increase; keeping the swarming fever down, either by extracting or adding primed sections, by raising the case of sections directly over the brood-chamber, putting on empty ones in place, and under the first case next to the brood-chamber.

"In case I have a prime swarm, I hive them in another hive. As soon as the queen has her work started, I remove the honey cases from the parent hive to this hive. After the parent colony has reared its queen-cells, I remove all but one, to prevent after-swarms, putting on section-cases as soon as they show signs of being crowded in the brood-chambers. In this manner I am bothered with swarms but little, especially after-swarms, thereby keeping down the swarming fever. As a rule, I never prevent increase of bees, but try to avert the swarming impulse; for if we get a honey crop we must have our hives full of bees; and yet with all of our skill and management, they will swarm, and swarm."

A number of queries were discussed at great length.

The question which agitated the minds of the members the most, was the following memorial, which was ordered to be sent to the State Board of Agriculture:

Whereas, The exhibition of the apiary department at the State fairs has been a hap-hazard affair, we ask as a society that the Board recognize Mr. J. M. Hicks as the superintendent of the apiary exhibit at the fair, and that his recommendation of a person or persons for judge or judges of said exhibit, be appointed."

Furthermore they desire the amount of premiums raised from $99 to $300.

The following new officers were elected: President, E. H. Collins; Vice-Presidents, W. C. Hall, T. S. Bull, G. B. Wilson, J. M. Hicks, Mrs. F. M. Cooper, W. Mason, W. Jordan, L. Snyder, J. T. Coffman; Secretary, G. C. Thompson; and Treasurer, Mrs. C. Robbins.

The bee-keepers desire recognition in the Board of Agriculture, and have instructed J. M. Hicks to represent them at the next meeting of the Board, which occurs on Feb. 19.

The convention then adjourned.

BEE-WISDOM.

Can Bees Reason, and Talk to Each Other?

Written for the American Bee Journal

BY PHILIP WECK.

Those who have watched the sagacity of bees, know that if only one bee discovers where honey is secreted, it will fill itself and return to its hive, and very soon it will bring an army of bees with it to carry home the discovered treasure, as much as fifty pounds a day; and if you assail one in a lonely place, the bee will go home, report the insult, and bring a company with their sharp-pointed weapons, to dart and avenge the insult of the one who was assailed. They are continually on their guard to avenge their enemies, man or beast, who are thousands of times larger than themselves. They have sentinels guarding their hives, which will appear to the reader, from

what I saw; their faculty of reason is very large, which can plainly be seen by the following incident:

One day while examining my hives, I saw a spider lodged in the corner of a hive, spinning its net. One bee flew in front of the hive to fight the spider, but the spider finally succeeded in spinning its web and trapping the bee in it; and while the bee was struggling for liberty, three other bees came to its assistance, and flew all at one time unitedly at the web, at least 20 times, to liberate the entangled bee.

I am sorry that I did not wait for the result, as I liberated the bee from the web myself. I have no doubt but what they would have accomplished their object, broken the web, and freed their imprisoned companion.

Bees are the most wonderful insects that God ever made. Not one lives to be more than one year old, except the queen; yet just look at their industry in laying up treasures for the rising generations, as well as for themselves, coming home doubly loaded when the flowers bloom, from sunrise to sunset, and often by moonlight; what ingenuity is exhibited in sipping honey from flowers, and in manufacturing wax to build their store-house to store their rich treasures; in making cells, which they so wonderfully construct; while in others, the queen will deposit her eggs, and still others are used to store pollen to feed the rising generation; in building queen and drone cells at the proper time; in hindering queens from killing each other, when it is not best; in getting rid of drones when not wanted; and what a grand sight it is to see them swarm!

How wonderfully and skillfully God has made the little bees to gather such luxuries for man.

Cheviot, N. Y.

PASSAGE-WAYS.

Winter Passage-Ways Through the Combs are Unnecessary.

Written for the American Bee Journal

BY G. M. DOOLITTLE.

Not long ago a neighbor bee-keeper called, asking if he might see how I made passage-ways for the bees through the combs, so that the bees might not be caught by each cold snap during the winter, on the outside of the combs, away from the cluster, as the bees were contracted in the cluster so as to keep up the warmth necessary for the colony to pass through each cold spell.

I told him that I never, of late years, made such passage-ways, for I did not think them at all necessary. As it may seem to some that I was just a little "off the track" in so replying, I will give a few of the reasons why I think as I do, as well as some of my observations along this line.

As fall approaches, if we examine a colony of bees, we will find that the activity manifested during spring and summer in the interior of the hive, becomes less and less, so that by the middle of October, in this latitude, all brood-rearing has ceased, and the bees have become partially dormant; still, so far, they have not packed themselves away in a snug cluster, or compact shape for winter.

Every opportunity given by a warm day is improved to void the feces, so that the bees may be prepared for a long cold spell, when such occurs. As the weather grows colder, and the bees contract their cluster, many packing themselves away in the cells until the smallest possible space is occupied by them, and thus the requisite warmth is secured to keep them alive, when the mercury sinks below zero.

All are well aware that in this contraction of the bees (at certain times), many of them are left singly or in little clusters of from five to ten, which do not recede with the main cluster, and thus are chilled where they are, and if the weather becomes cold enough, they are frozen, thus losing to the cluster that number of bees. Some claim that this loss is going on all winter after each warm spell occurred, where large frames are used, and say a reason why bees seemingly wintered so much better in box-hives years ago, was because with box-hives, cross-sticks were used in the center of the hives, which caused holes or passage-ways through the combs in the centre of each, while with a large movable-frame no cross-sticks could be used, as was the case with box-hives, and hence no holes were left as there were in those days; thus compelling the bees to pass over and around the combs of cold honey to keep pace with the receding cluster, instead of passing through the centre of the combs to the next range, which was more nearly filled with bees.

In thus passing around after each warm spell, many bees become stiffened and are caught by the cold, which might have been saved if holes were provided in the centre of the combs for them to pass through. This evidently was the argument used years ago, when the Langstroth frame and others were provided with a shaving bent to form a circle an inch or so in diameter, which was suspended from the top-bar by means of a little strip of tin, supposing that this would effectually secure a passage-way for the bees. However, but a short time elapsed before it became apparent that during a good yield of honey this shaving would be filled with comb and honey, thus making the combs as they were before, as far as passage-ways were concerned, while the combs were much damaged by the plan, to what they would have been had they been built whole.

However, I used to be one who considered these holes necessary, and after failing with the shaving, I next practiced cutting holes through the combs, each fall, which would be filled up the following summer, so that when winter approached, the process had to be repeated.

This taking out all of the combs each fall was quite a job, and when some one suggested that a hole might be bored through one side of the hive, and a square stick made sharp at the end, slowly wormed through the combs to the opposite side, so as to make a hole through each without danger of killing any bees, I was not long in adopting that process.

If holes were to be made through the combs, the above is the best plan I know of; but it soon became apparent to me that the reason assigned as the cause of the death of the bees was not the real trouble, for while making holes one fall, I found little clusters of chilled bees between the combs just outside of the cluster, and also in the sections of a hive, which happened to be left on after the rest had been taken off; these same chilled bees being on the combs right above the entrance to the sections, and only a little way off, and in a direct line with the cluster below.

Later on I found the bees would stay and die within ½ of an inch of the holes which I had made, when it would appear that they could have passed through these passages just as well as not. This opened my eyes, and upon carefully noting the facts which came under my observation, I discovered that when the weather was cool, cloudy and rainy for several weeks before it was severely cold, so that the bees had no chance to fly, this loss was apparently much greater than when a clear, warm day occurred so that the bees had a good flight immediately before a severe cold spell.

By the number of bees that were found on boards and such places, dull and quite stupid after such a fine day, I concluded that these were the very same bees that would have died by not following the cluster, had not a warm day occurred for them to leave the hive to die; hence I say that the loss was apparently greater when no such day occurred, for the bees that were found out around on the boards and grass after a warm day, represented the same bees which gave me so much uneasiness upon finding them dead in

little clusters away from the main cluster, when they were compelled by cold weather to die in the hive; so really there was no difference.

After bees once get thoroughly clustered, I do not see this loss occurring after each warm spell, as some claim that it does, as spoken of above; nor but little after a warm fall like the past has been, when the bees have an opportunity to fly every little while.

After being fully settled for winter, and this loss of bees that are without sufficient vitality to stand the first cold spells, has passed away, a colony will lose but few bees during the rest of the winter, if there is no other disturbing causes, except warm and cold spells alternating, as is attested to by our finding scarcely a handful of dead bees on the bottom-board after a long period of such weather.

From the above I decide that holes through the combs are unnecessary, and that no provision need be made other than exists in all well-regulated movable-frame hives.

Borodino, N. Y.

FACING HIVES.

How to Place the Hives when Taken from Cellars.

Written for the American Bee Journal

BY FRANK COVERDALE.

In which direction should bee-hives front? is a question of great importance. It is also one very little discussed by our ablest apicultural writers, though we have been advised to set out wind-breaks, or build a high fence, and behind all this have the location facing in a southerly direction, thus making a warm, cosy place for the bees in early spring, and a very hot place in the summer. This, in my thinking, is very objectionable, as here is liable to occur great mortality in early spring, and an abundance of swarming right in the midst of the white clover harvest, and before they are really strong enough to swarm; where, if the hives had been fronting northerly, with scattering shade trees (not high trees), so as to shade the hives a part of the time, the trouble might not have occurred.

I would not advise having shade trees very thick. It is from personal experience that I write. I have been experimenting in this direction for about ten years, and I think that I have come to a conclusion that is satisfactory to me. I cannot control my bees in a hot or sultry, close place, for they will hang out on the fronts of the hives, and at a loss of honey, or at my expense. The better the honey-flow, the warmer is the inside of the hive, so it would be well for us, even in this latitude, not to choose too hot a place for the hives. If I should have any slope at all, it would be in any direction except south.

On the other hand, early spring is very trying, and at this time of the year we should do all we can to save the old bees, for if we accomplish this, other things being favorable, we will have plenty of brood, and plenty of bees to gather the clover honey. For hours in the spring of 1888 I watched, with much interest, the little bees fly from the cosy and well-protected apiary, on which the direct rays of the sun rested, causing the bees to take wing in great numbers. Over the willows they flew, with the temperature at 45°, though there were clouds at times, and chilly northern breezes. If my bees had been on the north side of the willows, they would not have been out, taking the chances.

I had one row of hives fronting north, and where the cool breezes could strike the entrance; these bees did not dwindle to any extent, while those in the sun, and facing south, though protected from the wind, dwindled down on the average of one-third of the bees. Thus it may be seen that if the white clover had yielded a surplus, I would have been the loser of hundreds of pounds of honey. In short, I think quite positively, that it is not best to carry bees from any repository, and front their hives to the south, in a sunny and close yard.

Welton, Iowa.

ILLINOIS.

Report of the Northern Illinois Bee-Keepers' Convention.

Written for the American Bee Journal

BY D. A. FULLER.

The annual meeting of the Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association was called to order in the county Court Room at Rockford, Ills., on Jan. 15, 1889, by President L. Highbarger. The reports of the members showed 20 bee-keepers present, and their crop of honey for last season was 9,280 pounds of comb honey, and 10,080 pounds of extracted honey. All of the members thought that their bees were wintering well, with plenty of stores, but that the past season had not produced nearly half a crop of surplus honey.

The resolutions laid over from the last meeting to change the name of the Association to "Northern Illinois," and the time for the annual meeting to the third Tuesday in December, were adopted.

A Peculiar Queen.

Mr. R. Gammon asked: Can a queen that produces all three-banded workers be a hybrid? He then stated that he bought a queen, and all of her worker-bees were straight three-banded Italians; but all the queens he reared from her were dark, and their bees were hybrids.

Dr. C. C. Miller thought that there might be a taint of impurity in the old queen; or might it not be that all the seven young queens mismated?

Mr. Gammon thought that it was impossible for all the young queens to have mismated, as all his other queens were purely mated.

The Chapman Honey-Plant.

Is the Chapman honey valuable enough to occupy tillable ground?

Dr. Miller said that for a honey-plant to be worth anything, it must be able to take care of itself; that he had one-eighth of an acre, and the first year he cared for it well, when it grew and did nicely; but the young plants winter-killed badly. There were a great many bees on the blossoms, but did not work as they do on white clover, but would lie on the blossoms and act stupid. While they were gathering from white clover they went from one blossom to another very lively.

President Highbarger said that all of his Chapman honey-plants winter-killed, except a few plants under a snow-drift. These blossomed, and the bees worked on them well, but he also noticed the slow, stupid action of the bees on the blossoms, and also stated that some worm cut the blossoms off badly. He did not think that he could make it pay to raise it especially for honey.

Mr. E. Whittlesey said that his bees worked well on it, but some worm or insect worked in the stalk, killing it badly.

Prevention of Second Swarms.

Mr. Gammon said that his plan of preventing second swarms, was to cut out the queen-cells. It worked successfully with him. He kept about 30 colonies.

Mr. Lee said that was his plan, and it was successful. He had 200 colonies.

Dr. Miller asked how many had tried moving the old colony entirely away, putting the new one in its place. He did that way, and succeeded well.

Mr. Stordock used the Heddon plan, and liked it, as it was a success.

Mr. Herrick had tried moving the old colony away, and lost one. He did not try it again.

How many clip their queens' wings? Seven said that they practiced it. Mrs. Woodard said that by clipping the queens' wings she could hive her own bees, and take care of them herself.

The convention then adjourned until Wednesday morning.

SECOND DAY.

The Wednesday morning session was called to order at 9:45 o'clock, with President Highbarger in the chair.

When should the bees be placed in the cellar for winter? The fact was developed that the members had placed their bees in the cellar from Oct. 25 until Christmas. Some of the members thought that their bees wintered better when placed in the cellar earlier, and disturbed them less.

Unfinished Sections.

How do you prevent having a large number of unfinished sections in the fall?

Dr. Miller takes the unfinished sections from the weaker, and places them on the stronger colonies.

Mr. Whittlesey takes away the completed sections, places the unfinished ones in one row, and fills the empty space of the super with pieces of board cut to fit it.

Dr. Miller also said that he did not think it advisable to tier up too high, as the bees would commence in all of them; but if doubtful as to their needing more room, he would place the last super on top, instead of under the others.

The next order of business was the election of officers for the ensuing year, and resulted as follows: Leroy Highbarger, of Leaf River, President; A. J. Sweezey, of Guilford, Vice-President; O. J. Cummings, of Guilford, Treasurer; and D. A. Fuller, of Cherry Valley, Secretary. The convention returned a vote of thanks to the Supervisor of Winnebago county, for the free use of the Court Room.

It was decided to hold the next meeting on May 21, 1889, at the residence of H. W. Lee, of Pecatonica, Ills.; on Aug. 20, 1889, at the residence of Russel Marsh, of Guilford, Ills.; and the annual at Rockford, Ills., on Dec. 16 and 17, 1889.

On motion, annual dues of the members was made 25 cents per year.

The convention then adjourned.

D. A. FULLER, *Sec.*

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

May 1, 2.—Texas State, at Greenville, Tex.
G. A. Wilson, Sec., McKinney, Tex.

May 4.—Susquehanna County, at Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 21.—Northern Illinois, at Pecatonica, Ill.
D. A. Fuller, Sec., Cherry Valley, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Bees Wintering Splendidly.—L. D. Cheasbro, Conway, Iowa, on Feb. 2, 1889, writes:

Bees are wintering the best I ever saw them. Last spring I had 6 colonies, increased them to 24, and obtained 600 pounds of first-class comb honey in one-pound sections. I sold it here at 15 cents per pound. We had no honey-flow until September. White clover and basswood was a failure. My bees are all taking a flight to-day. I examined all of them, and I find more honey in the hives to-day than I ever saw before at this time of the year. It has been so warm this winter that I have not put them into the cave, but left them on the summer stands.

Proper Width of Hives.—G. Kelly, Kalamazoo, Mich., on Feb. 1, 1889, writes:

1. What is the proper width for a hive to contain 8 brood-frames? 2. Is ⅜ of an inch enough space between the bottom of the frames and bottom-boards?

[1. A hive to contain 8 brood-frames should be 12 inches wide, inside. 2. The space at the bottom of the frames should be not less than one-half inch.—ED.]

Producing Comb Honey.—D. W. Dougherty, Springwater, N. Y., on Jan. 21, 1889, says:

I appreciate the efforts of the editor of the BEE JOURNAL for the cause of bee-keeping. We cannot work successfully without the press, one of whose most honorable members is the AMERICAN BEE JOURNAL. The season of 1888 in this part of the country was a poor one, owing mostly to dry weather. I had a small increase, and but little honey from my apiary. I work entirely for comb honey, the tiering-up method being practiced.

Successful Cellar Wintering.—A. J. Duncan, Hartford, Iowa, on Feb. 1, 1889, writes:

The past two years have been the poorest for honey that I have experienced since I have been keeping bees. Last year I took 30 pounds of honey per colony, spring count, some of it being comb honey, but mostly extracted. In 1887 I took 25 pounds per colony, but in 1886 I took 150 pounds per colony, spring count, but I had full combs below and above to hive the swarms on. I never extract from the homestead. I have wintered my bees very successfully for the last several winters in a cellar under the sitting-room of my house, where the fire never goes out in the winter-time. The cellar is 16x24 feet, outside measure, and 7 feet deep in the clear, ventilated by a 7-inch thimble in the stove-flue, which commences on the cellar bottom. The cellar is very dry. A room is partitioned off large enough to hold the bees, and a good thermometer is hung up against the partition which registers as low as 32° for several days at a time, though vegetables do not freeze. My bees are the most quiet at between 32° and 40°. I had my 48 colonies all prepared to put into the cellar last fall, when my wife was taken sick, and so very nervous that we had to walk on tiptoe, and talk in a whisper. She has been sick nearly ten weeks, but is a little better now; consequently the bees are on the summer stands not very well protected, and I fear that some of them have not enough stores for out-door wintering. I label every package of honey, and sell it in the home market.

Bees are Quiet—Mild Winter.—E. W. Councilman, Newark, N. Y., on Jan. 29, 1889, writes:

I have 76 colonies of bees in the cellar, seemingly in good condition, but, like all the rest, last fall my bees did not do well, as I got only 1,000 pounds of surplus honey from the whole business, and not enough increase to make up for previous spring losses. The winter has been very mild, and bees have seemed remarkably quiet in their winter quarters, and thus far but two quarts of dead bees have been swept up from the cellar-bottom, seemingly but a tithing of previous years, up to this date; so by this I think that the prospect is excellent for colonies to come through the winter in a strong condition.

A Delightful Climate.—Mr. John Boerstler, Vashon, Wash. Ter., on Jan. 28, 1889, says:

We have had spring weather all this winter, and not any snow or ice. We have been plowing all along from Christmas up to this time, and are making garden right along. This is the best climate that I ever saw—it is nearly like California. Peaches are already budding, and flowers are in bloom all winter. I am looking for 1,000 emigrants from the East in the spring. I cannot see how they can help coming out West, with the climate we have here. Bees are all right yet. They are flying every few days, and the prospects are good for fruit this year.

Wild Bees.—O. C. Becker, East Saginaw, Mich., on Feb. 4, 1889, writes:

During July and August, I take my summer vacation on the Shore of Lake Huron, where there are wild bees. I have caught them, and put them into a box with honey, when they would fill themselves, leave, and not return. Does any one know of anything that they (the bees) will work on, when there are flowers in bloom? I concluded that nothing could be done in finding bee-trees until after the frosts came.

Bee-Cellars—New System.—R. S. Becktell, Three Oaks, Mich., on Feb. 4, 1889, writes:

The season of 1888 was the poorest that I have seen here in my 17 years' experience with bees. I generally get 20 to 100 pounds of comb honey per colony, but last season I got nothing from 200 colonies. The most of the colonies obtained enough honey for winter, but I will have to feed some in April. I have 175 colonies of bees in the

cellar under my house; it is 12x30 feet. I have kept it at 45° to 50°, except once when it was 52°. The temperature keeps rising when there is but little ventilation to the cellar. Why is this? I think that it is only natural that the bees would gradually raise the temperature, especially after breeding begins, and the thermometer outside indicates only 20° to 45°.

Dr. Tinker's new method of working bees for comb honey, described on page 25, I think will not work. The bees will only average 40 pounds of honey per colony, and his second brood-chamber will hold that amount, which would have to be extracted; and his half-filled brood-frames would be filled too much with brood-comb, etc.

No Surplus Honey for 2 Years.—Rev. John Hunt, Plain City, O., on Jan. 29, 1889, writes as follows:

My account of the bee-business in this region is not encouraging; for the last two years it has been a failure. During that time I have received no surplus honey, and have been obliged to feed with sugar syrup. I had 17 colonies in the fall, but not any of them being strong, I reduced them to 9 by uniting. I am hoping in this way to have a better chance to carry them through the winter. Thus far they appear to be doing well. This winter has been mild and open, and I think that it is favorable for the bees. My neighbor bee-keepers are not doing much better than myself. We hope that the next season will witness a revival of the white clover, which has been killed out by the severity of the weather in time past, or some other cause. I rejoice that there is sufficient enterprise to maintain a weekly bee-paper in the interest of apiculture.

Bees Quiet in the Cellar.—C. G. Ridout, Hutchinson, Minn., on Jan. 24, says:

I began in the spring of 1888 with 5 fair colonies, increased them to 12, and obtained 500 pounds of light comb honey, nearly all clover and linden. The 12 colonies this fall which I put into the cellar, were all strong, and had plenty of stores, more than they needed, I think: but I would rather they would have too much than not enough, which is frequently the case with many.

I would like to ask a question, viz: The winter in this section has been unusually warm, and my bees were put into the cellar early last fall. So long as they remain quiet is it best to leave them undisturbed in the cellar, or should they be given a flight?

[Do not disturb them unless they become restless.—Ed.]

Feeding Bees in Winter.—Geo. W. Ogden, De Kalb, Mo., Jan. 29, writes:

The last year has been a hard one, but we must try again. I shall, at least. I have 20 colonies flying to-day. They are on the summer stands. I tried the cellar last winter, and I cannot say that I prefer it. I think that if bees have plenty of honey or syrup, they will be all right in this State. At least 25 per cent. of the bees in this county will starve. I have fed lots of bees during the last 20 days, for my neighbors. They all have the Langstroth hives. I turn the syrup into the empty combs, from 5 to 10 pounds to the colony, in a few minutes. I have kept bees for 25 years, and have not lost any money by it yet, but 1887 and 1888 were poor seasons with me. I got 150 pounds of honey last year, and 2 swarms, and lost 10 colonies by starvation in August. I put 27 colonies out of the cellar last March. The bee-keepers are going to organize on Feb. 2, at Agency, in this county.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the American Bee Journal for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the Bee Journal.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2 00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

Simmins' Non-Swarming System, and the American Bee Journal for one year, for $1.25. The subscription to the Bee Journal may begin anew at any time.

We Supply Chapman Honey-Plant **SEED** at the following prices: One ounce, 40 cents; 4 ounces, $1; ¼ pound, $1.75; 1 pound, $3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Good Enough.—Andrews & Lockhart, of Patten's Mills, N. Y., on Oct. 13, 1888, wrote as follows concerning their use of the advertising columns of the American Bee Journal:

We got more orders from our advertisement in the American Bee Journal than from all the other bee-papers put together.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 50	1 40
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Cook's Manual (**old edition**)	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of of any other papers. Send for such to the publishers of the papers you want.

Catalogues for 1889 are on our desk from—

Wm. W. Cary & Co., Coleraine, Mass.—36 pages—Italian Bees and Apiarian Supplies.

F. A. Snell, Milledgeville, Ills.—16 pages—Apiarian Supplies, Italian Bees, etc.

Frank A. Eaton, Bluffton, O.—16 pages—Italian Bees and Queens, and High Class White Fowls.

Jno. Nebel & Son, High Hill, Mo.—8 pages—Italian Bees, Queens and Bee-Keepers' Supplies.

Dr. J. P. H. Brown, Augusta, Ga.—4 pages—Italian Queens and Bees, and Apiarian Supplies.

Andrews & Lockhart, Patten's Mills, N. Y.—8 pages—Carniolan Bees and Queens.

Jos. E. Shaver, Friedens, Va.—24 pages—Bee-Keepers' Supplies.

Childs & Jones, Utica, N. Y.—52 pages—Cheese Factory, Creamery and Dairy Apparatus and Supplies.

Core's Farm Accountant is a pocket-book of 64 pages published by Arthur S. Core, 170 Front St., New York. It is intended for keeping a correct data of the entire farm, the product of each crop as well as the animals. There are also valuable hints on farm labor, poultry, foods for milk and fat producing, butter, pasturing and soiling, light and heavy soils, apple, peach and berry culture, substances taken from the soil, etc.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

Honey and Beeswax Market.

SAN FRANCISCO.

HONEY.—White comb, 10@11½c.; dark, 6½@8c. White extracted, 6½c.; light amber, 5¼@6c.; dark amber, 4½@5½c.

BEESWAX.—18@22c.

Jan. 25. O. B. SMITH & CO., 423 Front St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 17@18c.; best 2-lbs., 16@17c. Extracted, 8@9c. The trade is dull.

Jan. 19. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 16@18c. Supply is not large, but about equal to the demand. Market will be bare of comb honey long before the new crop is ready.

BEESWAX.—22@23c.

Jan. 18. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 16@17c.; 2-lbs., 14@15c. Good dark 1-lbs., 13@14c.; 2-lbs., 12@13c. Buckwheat 1-lbs., 13@14c.; 2-lbs., 11@11½c.—Extracted, 6½@7½c., depending upon quality and style of package. Market dull and stock sells slowly.

BEESWAX.—22c.

Jan. 24. S. T. FISH & CO., 189 S. Water St.

ST. LOUIS.

HONEY.—Choice white clover comb, 13@15c.; fair 11@12c.; dark, 8@10c. Extracted, dark, in barrels, 5@5½c.; choice, 5½@6c.; in cans, 6@7½c. Market is quiet but steady.

BEESWAX.—20c. for prime.

Jan. 17. D. G. TUTT & CO., Commercial St.

CHICAGO.

HONEY.—Best 1-lbs., 17@18c. Extracted, 7@9c. for best quality, according to body, flavor and style of package. Trade is limited to local consumption. Off grades of comb honey are slow at lower figures than given above. But few will buy dark comb.

BEESWAX.—22c. R. A. BURNETT,

Jan. 17. 161 South Water St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 15@16c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c.; fair 1-lbs., 12@14c. Extracted, white, in kegs and ½-barrels, 8½@9c.; amber in same, 7½@8c.; in pails and tin, white, 9½@10c.; in barrels and ½-barrels, dark, 5½@6c. Market dull. The very best sells slowly, and inferior qualities are neglected very much. Damaged, broken and leaky comb honey not wanted.

BEESWAX.—22@23c.

Jan. 10. A. V. BISHOP, 142 W. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@16c. Demand slow, with a smaller supply than ever at this season for the past 10 years.

BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.

Jan. 9. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—White 1-lbs., 16c.; fall, 14c.; California 1-lbs. 16c.; white 2-lbs., 14c.; extra 2-lbs., 13c. Extracted, white California, 8c.; amber, 7c. Market dull.

BEESWAX.—20@22c.

Jan. 22. CLEMONS, CLOON & CO., cor 4th & Walnut

KANSAS CITY.

HONEY.—Choice 1-pounds, 15@16c.; dark 1-lbs. 12c.; 2-lbs., 14c.; dark, 11c. White extracted in 60-lb. cans, 8c.; amber, 7c.; in barrels and kegs, 5@8c. Demand good, prices steady, and stock large.

BEESWAX.—None in market.

Jan. 4. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—White, in 1-lb. sections, 15@16c. Extracted, 9@10c.

BEESWAX.—20c.

Jan. 1. J. M. CLARK & CO., 1409 Fifteenth St.

NEW YORK.

HONEY.—We quote: Fancy white 1-lbs., 14@15c.; 2-lbs., 12c Fair white 1-lbs., 14@15c.; 2-lbs., 10 to 11c. Buckwheat 1-lbs., 10@11c.; 2-lbs., 9@10c. Extracted, white, 7½@8c.; dark buckwheat, 6@6½c. which is in good demand. Market dull, except for extracted buckwheat; for all other kinds it is quiet, owing to unseasonable weather, we believe.

HILDRETH BROS. & SEGELKEN,

Jan. 10. 28 & 30 W. Broadway, near Duane St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½ cents; amber, 6c. Comb, white 1-lbs., 13@14c.; 2-lbs., 13c.; amber, 10@11c. Demand is of a jobbing nature, and arrivals are small.

BEESWAX.—19@20c.

SCHACHT, LEMCKE & STEINER,

Jan. 8. 16 & 18 Drumm St.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

Convention Notices.

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at the Court House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.

H. M. SEELEY, *Sec.*

☞ The 11th annual session of the Texas State Bee-Keepers' Association will be held in the apiary of W. R. Graham, of Greenville, Hunt Co., Tex., on May 1 and 2, 1889. All bee-keepers are invited. The last meeting was held here last May, and was the best ever held. So we look forward to a good time next May. A cordial welcome and hospitality will be tendered to all who come. G. A. WILSON, *Sec.*

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

Advertisements.

1889. Italian Queens. 1889.

HAVING moved 8 miles from Nicholasville, to a better location for BEES I will engage in Queen-Rearing more extensively than formerly. I have the *very best* **ITALIANS** only. Prices:

Select Tested Queens, in April, $3; in May, $2.50; in June, $2.00; July to November, $1.50. Queens warranted purely mated, $1.00; 6 for $5.00.

☞ Make Money Orders payable at Nicholasville. Send for Circular. Address,

J. T. WILSON,

7Dtf LITTLE HICKMAN, Jessamine Co., KY.

Mention the American Bee Journal.

SECTION PRESS

PRICE, $2.00.

FOR putting together one-piece sections. Every section square, and a smart boy or girl can fold 100 in six minutes. Try one and you will never regret it. Send to your supply dealer, or to

WAKEMAN & CROCKER, Lockport, N. Y.

7A26t

Mention the American Bee Journal.

MISTAKES.

IN the BEE-KEEPERS' REVIEW for February, the veterans "owu up" to the mistakes they have made, and point out those being made at present by other bee-keepers. This Number also has a long article from Byron Walker, showing how bees may be obtained, in the spring, very cheaply, and in large quantities, from the South.

Price of the REVIEW, 50 cts. a year. Samples free. Back numbers furnished.

"The Production of Comb Honey"

Is a neat little book of 45 pages; price, 25 cts. This book, and the REVIEW for one year, for 65 cts. For $1.00 the REVIEW will be sent two years and the book thrown in. Stamps taken, either U. S. or Canadian.

Address, **W. Z. HUTCHINSON,**

7A1t 613 Wood St., FLINT, MICHIGAN.

Mention the American Bee Journal.

SEEDS FREE! Until March 10th will send New Cat. and 6 sample packets choicest Seeds for **Ten cts.** Pansies, 50 vars. Double Asters, 35 vars, Prize Sweet Williams, 50 vars. Spotted Petunias, &c. (worth 55c.) **GOODELL'S FLOWER FARM, Pansy Park, Dwight P. O., Mass.**

Mention the American Bee Journal.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Feb. 23, 1889. No. 8.

EDITORIAL BUZZINGS.

Mr. Geo. E. Hilton has been engaged to edit a department on apiculture in the *Michigan Farmer*, and he will make it interesting, too.

Fr. Ledermann, of Fayette, Howard Co., Mo., has passed to "the beyond," leaving his bees to the care of others. We have no further particulars.

If we See Rightly and mean rightly, we shall succeed, though the hand may stagger a little; but if we mean wrongly, or mean nothing, it does not matter how firm the hand is.—*Ruskin.*

Stitching with Wire is now done by machinery upon many periodicals. *Gleanings* has just adopted that method, in accordance with our recommendation. Mr. Root says the machinery gives most excellent satisfaction, and he wonders that he did not adopt it sooner. The cost is only one-fourth of what it took to do it by hand.

A Photograph of Mrs. Mahala B. Chaddock is on our desk, and will be placed in the BEE JOURNAL Album. It is a nice cabinet picture, but Mrs. C. says it flatters her some. It certainly is very attractive, and we expect it is quite natural. A similar photo accompanies the United States exhibit at the Paris Exposition.

By the way, Mrs. Chaddock is getting up quite a reputation as a writer. An article from her pen may be found in the *Popular Science Monthly* for this month. She now writes for several bee-periodicals, and is in correspondence with Sir John Lubbock, an English lord and scientist.

Cleome—Mexican Honey Plant.—Mr. C. H. Sapp, of Ravenna, O., on Feb. 13, 1889, writes as follows:

DEAR EDITOR:—I enclose a description (taken from the seed catalogue of Samuel Wilson, Bucks Co., Pa.) of the "Mexican Honey Plant." I desire to know if you are acquainted with the plant, or know anything of its merits? Could we reasonably expect it to fulfill even one-half what the description claims for it? Would there be danger of its becoming a troublesome weed if introduced? Any other information regarding it will be gladly received through the AMERICAN BEE JOURNAL.

Mr. Wilson has simply given another name to the "Rocky Mountain Bee-Plant," and palmed it off as "the grandest discovery of the modern age." It has been cultivated for bee-pasturage for several years, and is well-known to bee-keepers, and yet Mr. Wilson, in his advertisement, heralds his "new and valuable plant" in these words:

The introduction of this new and valuable plant is destined to be a great blessing to the American people, especially to those who are interested in bees and bee-culture. No other plant, tree or flower now known to the botanical science of the world can equal this beautiful and magnificent specimen in its handsome and attractive appearance and wonderful honey-producing properties.

Nothing can equal the splendor and magnificent beauty of the cleome when in full bloom and alive with bees. Each petal of the lovely flowers contains its miniature drop of honey, which sparkle like diamonds in the morning sun. For those who contemplate keeping bees, either on a large or small scale, nothing could be more useful or easily grown than this magnificent plant.

He then quotes the following from a correspondent:

No other plant known to the civilized world can vie with the cleome integrifolia in producing honey as food for bees. And no other honey is as clear and of as good quality.

He further says: "I have frequently weighed my bee-stands for a number of mornings and evenings, and found many of them to increase as much as nine pounds of honey a day."

Then Mr. Wilson winds up his advertisement with these deceptive words: "As yet the seeds of this valuable plant are very scarce. Our agent, after traversing the mountainous regions of Mexico for nearly two months, only procured about 100 pounds."

Instead of being so scarce, it may be found in ALL THE CATALOGUES of the dealers in bee-keepers' supplies, and quoted at 5 cents a packet, 15 cents an ounce, or $1.25 per lb.—while this Mexican "wonder" is offered in small packets at 25 cents each.

The *plant* is a good one, but is not new; neither is it "the grandest discovery of the modern age!"

The *honey* is also of good quality—but it is not true that "no other honey is as clear, and of as good a quality" as stated in this circular!

The *seed* is valuable, but it is not so scarce as to make it cost several dollars per pound, as Mr. Wilson says!

Its *habitat* is clay, gravel rock and limestone, and it grows in the Rocky Mountains, but it also grows in all the western and southern States, and it was not necessary to traverse the mountainous regions of Mexico for two months to procure one hundred pounds of seed!

It is a pity that Mr. Wilson should have misrepresented this honey-plant, which is none other than *cleome integrifolia*, or the "Rocky Mountain Bee-Plant," re-named by him as the "Mexican Honey Plant."

In reply to our correspondent, we will say that the seed can be sown anywhere—among rocks, on craggy hillsides, along the highways, in fence corners where nothing useful will grow, and where the winds and rains will spread them, and in a few years such waste places will prove attractive to the eye, and yield abundance of sweets for the table. The seed should be sown in the fall, when the plants will bloom the next season.

Mr. John Nau, of Middletown, Iowa, gave us a call last week, and we had a very interesting visit with him. He rightly remarked on the matter of the Bee-Keepers' Union, that downright ignorance was the cause of the senseless opposition to bee-keeping by fruit men. He had been a close observer of the benefit of which bees were to fruit, as he was a fruit-culturist as well as a bee-keeper and stock-raiser.

In the spring of 1881, after a very destructive winter on bees, he was riding over the country considerably, and noticed that the apple trees near an apiary were the only ones that were fruitful. The bees had died by the millions, and were scarce in the spring, and as a result apple-trees were very generally bare of fruit. Whenever he passed apple-trees that showed a good yield, he remarked that bees must be near, and so in a few minutes he came in sight of bee-hives. He made repeated remarks about it, and had several others notice the matter, and he was well satisfied that the bees were of the greatest benefit to fruit of all kinds, especially apples.

He says that if the fruit men would only give attention to this matter, they would keep a few hives of bees, just for their valuable services in fertilizing the fruit blossoms.

Get Ready for the Harvest.—The *Indiana Farmer* makes these very sensible remarks about getting ready now for the coming honey harvest: "Who of our farmer readers do not dislike to take the time in spring and summer, when every moment is so valuable, to put sections together, paint and repair hives, etc.? All this is work that certainly should be done now, during the cold and stormy weather. Think, too, what a pleasure it will be to feel that all is in readiness for swarms, let them come as early as they will. A golden motto for any bee-keeper is, have everything ready early, and get all in readiness when it can be done with the least outlay of valuable time."

GLEANS OF NEWS.

Europe seems to have exchanged weather with America this winter. The latest advices report the wind furious, and the weather bitterly cold. A cablegram of Feb. 9, dated at London, says :

The gale in England and Scotland still continues. Telegraphic communication has been interrupted by the storm, and a number of houses has been blown down. In Scotland a heavy snow-storm prevails, and the railways are blocked. All along the coast there have been numerous wrecks. A bark has been lost off Grimsby, and all hands were drowned.

From Berlin, the capital of Germany, on the same date, comes the following :

No evening train has arrived at Cassel or Frankfort. Traffic on all lines is interrupted by snow.

Insects.—Prof. Lintner, State Entomologist of New York, gives the known number of species of insects in the United States as 25,000, in the world, 325,000, with probably a still larger number not yet known. The number of plant-lice on a single cherry tree has been computed at twelve millions. In one year the entire wheat crop of the State was destroyed, causing a loss of $20,000,000. There are 223 different species of insect enemies to the apple.

White Clover in Poor Condition.—Henry Willson, Clinton, Ills., on Feb. 9, 1889, writes :

It seems that nearly all bee-keepers report the white clover in good condition, but here it is not, and I do not expect the bees to make more than a living from it the coming season ; last season it did not do even that well. My bees averaged 33 pounds per colony last year, spring count (nearly all of it being comb honey, and all from heart's-ease), and enough to winter on. Some of my colonies swarmed without an ounce of honey in the hive. I have 34 colonies in the cellar, but they are not very quiet.

We would like to hear from all apiarists who find that white clover has been damaged this winter. It will be interesting to know this. Will they please report ?

Sowing the Seed of general knowledge about bees is now quite common. Mr. Frank A. Eaton, of Bluffton, O., wrote us on Jan. 31, 1889, as follows upon the matter of scattering knowledge concerning bees in Toledo, Ohio, in addition to that given by Dr. A. B. Mason, mentioned some time since :

Prof. Frank M. Maguire, superintendent of one of the Toledo public schools, recently gave a one hour's lecture on "Bees and Bee-Keeping," to the Century Club of that city, one of the leading literary societies of Toledo. He illustrated the lecture with a living queen, drone, and worker-bee. He also exhibited a queen-cell, section, comb foundation, and drawn-out comb. It was a revelation to the Club, many of them never having before heard or dreamed of the true character of the bee.

Explanatory.—Relative to the "omission" mentioned by Mr. R. McKnight, on page 100, Mr. Holtermann sends the following explanation, which will end that matter in our columns :

You, Mr. Editor, knew that the article was in type, and proof sent to you before my departure for Owen Sound. I there omitted the clause with the kindest intention and best will towards all ; I took a liberty in so doing, and perhaps I should have read it as it was. On Mr. McKnight at least my good intentions were lost.

In reference to the omission of Mr. Pringle's essay, let me say that I did not know that I had omitted it until I hunted the matter up, when my attention was drawn to it last week. The supposition that any "personal pique" existed between Mr. Pringle and myself is erroneous, for at that very meeting I happened to have paid Mr. Pringle's membership fee before the election of officers, so as to make him eligible for directorship for his district. Mr. Pringle and myself have, perhaps, very little in common, yet that does not prove any pique ! I might explain matters a little more fully, and take exception to Mr. McKnight's statement as to the value of the matter excluded, but I do not wish to be the cause of producing any ill-feeling, or intensifying that which apparently exists. I find the school I have been in for some years an excellent one ; it will make me more careful, knowing that I am watched so closely, and caught up so quickly at the slightest slip by some ; and if I could always think that their criticisms were in a kindly spirit, I would find it less difficult to be thankful for them.

New Bee-Association.—Mr. J. G. Graham, of Agency, Mo., writes as follows concerning the formation of a new bee-society :

The bee-keepers of Agency, Mo., and vicinity, met on Feb. 2, and organized "The Agency Bee-Keepers' Association," with 14 members to start with. J. G. Graham was elected President ; Rev. S. H. Murray and E. F. Gordon, Vice-Presidents ; T. S. Smith, Secretary ; and J. E. Wallace, Treasurer.

Bees were reported as wintering well. The subject of hives was discussed ; each preferring his own or the Langstroth. The next meeting will be held on the last Saturday in March. The subjects for discussion are comb and extracted honey, and foundation for brood-chamber and surplus receptacles ; the kind and the extent to which it should be used.

Coins by Mail.—An invention that is being used for sending coin through the mails consists of a piece of pasteboard about the size of an envelope. In it are holes the size of a silver quarter, a half dollar, and a dollar, with red paper seals ready to paste across each slot. A coin can be put in and sealed, inclosed in an envelope, and sent through the mails in safety.

Coins should never be sent through the mails in ordinary envelopes.

Catalogues for 1889 are on our desk from—

H. G. Frame, North Manchester, Ind.—4 pages—Bees and Queens.

George Pinney, Evergreen, Wis.—16 pages—Nursery Stock.

Cleveland Nursery, Lakewood, O.—48 pages—Strawberries, Grapes, Gooseberries, etc.

Planting for Honey.—Mrs. L. C. Axtell, reports her experience with planting for honey thus, when writing to the *Farmers' Review* :

One year ago last summer we purchased one pound of Japanese buckwheat for which we paid 50 cents, sowed it, and it yielded three pecks. Again last summer we sowed the three pecks and got 16 bushels. It is a larger kernel by nearly one-third, and grows more thrifty than the other buckwheat. It hardly had a fair chance to do its best last summer, either, as the ground was weedy, and the weeds got ahead of the young buckwheat.

We had a 10 acre field of Alsike clover that was as handsome as a flower garden, last fall, with all the three kinds of clover in bloom at the same time, the Alsike, the red, and the white clover ; but as bees do not get much honey from clover in the fall, we could not tell how good a honey-plant the Alsike was. It has a most beautiful flower : the top of the clover ball is bright pink, and the lower is white, and many heads on a stem. It is in size about half way between the red and the white.

The Mild Winter has saved millions of dollars in fuel, and allowed builders and others to work nearly all the time—thus proving a blessing to those who need the results of labor.

Clothiers and those merchants who have large stocks of seasonable goods have suffered this time with coal dealers, but on the whole the mild season has been a blessing.

As to winter coming later on, an exchange wisely remarks that "we are now so far advanced in February that there is no reason why much attention should be paid to those croakers who say winter may yet come. Doubtless there will be unpleasant days this month and next, but there will be none of those bitter blasts that threaten the life of man and beast. The winter is far spent ; the days are lengthening out ; the sunshine grows stronger ; the spring is approaching." Let us all be happy and prepare for it.

The Bee and Honey Exhibit for the Paris Exposition, under the superintendence of Mr. N. W. McLain, is now complete, and has been shipped to Paris. It is a part of the exhibit by the United States Government for the International Exposition to be held in Paris during next summer.

Mr. McLain has been in Washington nine weeks preparing the articles collected for transmission, and has a very good assortment of bee-products and bee-keeping implements. He is now at work on the Meat and Dairy Products.

Seed.—The United States Commissioner of Agriculture, Hon. N. J. Colman, has purchased a quantity of the Chapman honey-plant seed for free distribution. Applicants desiring packages of the seed will be supplied while the seed lasts, in the order of their applications. The request for seed should be addressed to the United States Commissioner of Agriculture (Seed Division), Washington, D. C.

BIOGRAPHICAL.

AMOS IVES ROOT.

Among those who have assisted in making the pursuit of bee-keeping thoroughly practical, Mr. Amos I. Root is a prominent figure, and it is but right and proper to here record something of his past life.

The engraving given on this page was made especially for the AMERICAN BEE JOURNAL, from a photograph taken at our request, and this reproduction by the "Ives" process, is, therefore, a faithful representation of Mr. A. I. Root as he now appears, and not as he looked 12 or 15 years ago.

The biography, written by Mr. Ernest R. Root, the eldest son of Mr. A. I. Root, is as follows:

A. I. Root was born on Dec. 9, 1839, in a log-house about two miles north of his present business plant. He was a very frail child, and his father had little hopes of raising him, although the neighbors assured him that his wife would not let him die. As he grew older his taste for mechanics and gardening became apparent.

Among his early hobbies were poultry, windmills, clocks, electricity, chemistry, etc. He did not take kindly to feeding pigs, or, for that matter, general farm work, although he took particular delight in gardening. One of the jobs which he disliked was churning. Accordingly, to appease his mechanical turn of mind, and at the same time relieve himself of an irksome task, he constructed a windmill. This was attached to the churn, and the latter, in obedience to the wind, soon converted the cream into butter.

At the early age of 18, he became so enthusiastic on the subject of chemistry and electricity that he started out on a lecturing-tour, with a fully equipped apparatus of his own construction. Such an undertaking on the part of a mere boy was rather unusual, but he was not one of the kind who followed in the wake of most other boys—indeed, he was even called "peculiar." In spite of difficulties, and in spite of discouragements, he *electrified* his audiences, who sometimes complimented him, and at other times were disposed to make fun when his experiments did not turn out just as he told them they would.

About this time he engaged the services of one Samuel Bates, who acted as an assistant, door-tender, etc. In one of their journeys from one town to another, it became necessary for them, as they thought, to ford a stream. Young Root declared that the water was too deep, and insisted upon not undertaking it; but his companion declared that he would drive through alone, as the horse and buggy was his property. Accordingly the two boys, with the horse, began to ford the stream. They very soon got beyond their depth, and the horse, impeded by the wagon, sank; and Bates, not being able to swim, went down likewise. Amos, who had acquired the art, swam for the shore till he could swim no longer. With presence of mind he sank down and crawled toward the bank until out of the water. Having first emptied the water from his lungs he called for help, and then pushed a rail out to a point where the receding ripple showed his friend had just gone down, never to return alive. This was not the first instance in which Mr. Root saved his life by swimming.

While these tours among the people in the interest of science did not enrich him pecuniarily, it gave him an insight into human nature which doubtless has been of great value to him in his subsequent life. Nor was this the only course in the study of human nature in his early experience. It so happened that there was a country school (one of the pioneer style), which no teacher had been able to teach through a whole term. The big boys had boasted that they could "lick and put out any teacher" the directors might send, and heretofore they were successful in carrying out the fullest intent of their boasts. The last teacher, a college graduate, after being forcibly ejected from the building, cried because the boys would not let him in again.

When a young man of slight figure, in the person of A. I. Root, applied for the school, the directors accepted him. I can assign no reason for such acceptance, in the light of former experience, unless it was the wiry appearance and the determined face of the new applicant. Everything went well for a time in the school; but finally one or more of the big boys contrived to create a disturbance. The result was, the new teacher

MR. A. I. ROOT.

was overpowered by one of the brute forces. The latter called out, "Come on, boys, let's put him out." A. I. Root has a terrible temper when aroused. Now furious, with an almost superhuman effort he flung his burly opponent over, and, before he could recover himself, placed his foot upon him, and demanded of him to lie still or suffer the consequences. Young Root then asked the other boys if they were ready to obey. Order was restored, and the burly fellow afterward became one of his best pupils. Besides this, the teacher received the praise of the directors.

The next hobby of A. I. Root was clock-work and jewelry. Having learned the trade by paying $25.00 for a course of instructions (occupying almost *two whole weeks*), he decided to go into business. Accordingly he went to a friend and asked him if he would loan him a sum of money for a certain length of time. This friend gave him some advice which he has been glad of ever since. It was this: He would loan him the money if he wished, but he urgently advised him to wait a little and *earn* the money by working for wages. Unlike most boys, the embryo business man accepted the latter, and his success in business life proves the wisdom of the advice.

Shortly after setting up in the jewelry business, he was married (in 1861) to Miss Susan Hall. Imbued with a natural love for his work, and endowed with almost ceaseless energy and push, Mr. Root made his business prosper.

Ere long in the providences of time, a new "rootlet" sprang forth, of which I am told the parent branch was exceedingly proud. That was in 1862, and the boy, now a man grown, sometimes signs himself "Ernest."

The business continued to prosper until A. I. Root & Co. were among the largest manufacturers of coin-silver jewelry in the country. From $200 to $500 in coin were weekly made into chains and rings. The firm employed something over a dozen men and girls in the manufacture of gold and silver rings, chains, etc.

In 1865 his daughter Maude, now Mrs. J. T. Calvert, was born into the family. It was about this time that the first swarm of bees passed over his jewelry establishment. As this, together with his other bee-keeping experience, is fully given in the Introduction to the "A B C," I omit it.

About this time he began to write for the AMERICAN BEE JOURNAL, under the very suggestive and appropriate *nom de plume* of "Novice." In these essays, as some of the old veterans will remember, he recounted some of his failures, and some of his successes with bees. The articles seemed to take well, and, in the due course of time, so many inquiries came in, that he resolved to start a quarterly bee-paper, entitled, *Gleanings in Bee-Culture*. No sooner was the first issue put forth, than he determined to make his little paper a monthly.

Very soon after, the manufacture of bee-keepers' supplies was begun in connection with the jewelry business. With the windmill as a motive power, and a buzz-saw, "Novice," with the occasional assistance of the writer, made Simplicity hives. Sometimes the wind would not blow, and orders had to wait. I well remember on several occasions of getting up in the night when a breeze started up, to "help Pa" saw the boards, I holding one end while he managed the other.

As orders began to come, it was thought a foot-power buzz-saw would do what the wind would not. A "Barnes" was ordered, and wind and foot-power were made to answer for a while. To make a long story short, the supply-business continued to grow at such a rate that a little engine was ordered. This likewise was inadequate, and finally it was found necessary to engage a night force, and run night and day. Things continued thus for a couple of seasons, when the jewelry business and the building "up town" was sold (1877), and instead another, larger, was erected near the depot. This is shown on the first page of the "A B C of Bee-Culture." As the subsequent growth of his business is already given fully in the Introduction of the work just mentioned, I omit it here also.

In business matters he is prompt and decisive. An array of complications often arises in business, but his decision is prompt and final. With remarkable celerity he will grasp an idea or the gist of an article. The rapidity with which he will transmit his thoughts on paper is no less remarkable. He will usually dictate four pages of solid printed matter (5,000 words) in little over an hour, and that, too, through interruptions which he permits of clerks plying him with business questions.

While he is attending to his other business the stenographer transcribes his thoughts with a type-writer. Sometimes I think more deliberation in dictating might be to his advantage; but he has not the time nor strength.

His activity is almost ceaseless, and his energy often goes beyond the proper limits of strength. He rises early in the morning, and from that time on till bedtime he is "constantly on the go." I have often desired to see him sit on a hitching-post and

"take it a little easy just for two minutes," but he never has accorded me the pleasure, and it is not at all likely he ever will. He says he would "rather wear out than rust out;" but if the Lord wills, he will do neither just now.

To rest, in the sense of inactivity, is out of the question. That this constant activity, and the wear and worry of a large wholesale and retail business, has necessitated rest, his ill-health plainly shows. Young blood, in the personages of J. T. Calvert, Mr. J. S. Warner, your humble servant, and others, has, within the last three or four years, very materially lightened his labors.

Besides the two older children, are Constance, Caddie, and, last of all, Huber. This sketch would be incomplete were I to omit mention of the many ways that his faithful wife has helped him, in her own quiet, unassuming way, to bear up under his self-imposed tasks; nor should I forget to lay some of the credit to his good old mother, who still survives. It was she who gave him his early Christian instruction, and who prayed for him many years before he gave his heart to God.

Some things concerning the life of Mr. Root I have omitted, because they have been given before. But I must confess, I have not been scrupulously modest in writing up the facts. I have simply told them from the stand-point of another man's son. Without making any apology, I will, therefore, sign myself ERNEST.

It is now nearly 14 years ago that we made our first visit to Medina, O., for the purpose of having an interview with Mr. A. I. Root. He was then in the jewelry business, and had just branched out a little by making a few apiarian supplies, by the aid of the windmill at the top of the building in which the store was located.

We had corresponded some, but had never met. Upon entering the store we inquired for Mr. Root; he came forward, and we gave our name, shook hands, and commenced to chat. Mr. Root took us for Mr. S. F. Newman, of Norwalk, O. Upon being corrected as to our identity, he said, "Now let us shake hands and begin over again." We chatted about the AMERICAN BEE JOURNAL and *Gleanings*, the bees, the pursuit of bee-keeping, etc., and he remarked that he admired the excellent typographical appearance of the BEE JOURNAL, and hoped some future time to be able to have *Gleanings* printed equally well, and then he would be satisfied. Well, Bro. Root has "got there," and *Gleanings* is now printed in a style which is an honor to the craft.

Bro. Root is to be congratulated upon the success of his periodical—*Gleanings in Bee-Culture*. When it was started in 1873, it contained but 8 poorly printed pages, and was published quarterly. Now it contains 32 pages and a cover, and is published twice a month—well edited, beautifully printed, and richly illustrated. Every volume is valuable, and is in our library in substantial binding.

We have had business relations with Mr. Root for 15 years, and during that time we have had a settlement every month (with only one or two exceptions, and then "for good and sufficient reasons") and the balance has always been promptly received or paid, as the account required. We have never had an unpleasant word on finances. Mistakes have been made, but with both parties anxious only to be right, they have been readily adjusted. The monthly balances have often been over a hundred dollars, but the accounts were settled just as promptly as if the balances were only a dollar.

If this were the rule among bee-keepers, how much more pleasant it would be to do business! To get a settlement with some is almost an impossibility; with others it is so lingering as to be disgusting, while others refrain from a settlement until all amicable relations are suspended, and they are literally forced to pay. Let all such copy the example of friend Root, and prosperity, like his, may result to them.

QUERIES & REPLIES.

The Temperature Inside and Outside of a Bee-House.

Written for the American Bee Journal

Query 614.—What should be the outside temperature, as compared with the temperature in a bee-house, when it is necessary to open the doors to cool off the bees? In my experience it should be 10° colder outside than inside; otherwise it is an injury.—Mo.

From 8° to 10° colder.—H. D. CUTTING.

I think that you are about right.—A. J. COOK.

I have had no experience in this matter.—EUGENE SECOR.

I have had no experience with bee-houses, and so I must say that I do not know.—C. H. DIBBERN.

The idea should be to preserve an *even* temperature in the bee-house, regardless of what it is outside.—J. P. H. BROWN.

I think that it could be done with safety when about 50° outside.—P. L. VIALLON.

You may be right. I have no practical experience that would shed any light.—J. M. HAMBAUGH.

My experience is just like yours. The fresh air seems to be of no use, but on the other hand, it excites and arouses the colonies.—JAMES HEDDON.

I do not see what difference it makes about the outside temperature, if it is only colder than the inside.—A. B. MASON.

You have answered your own query a great deal better than I could do it, as I practice out-door wintering, with the best results.—WILL M. BARNUM.

I have had no experience with a bee-house, but I do not see why the difference should be just 10°.—C. C. MILLER.

If your bee-house is properly constructed and properly ventilated, it will never be "necessary to open the doors to cool off the bees."—MRS. L. HARRISON.

I have had no experience with the ventilation of a bee-house. I have tried in-door wintering with a few colonies, but lost every one of them.—M. MAHIN.

It would not be safe to proceed on that theory. If it were 60° inside, and 50° outside, opening doors would be likely to do injury; but if it were 45° inside, and 40° outside, it would not.—R. L. TAYLOR.

This seems to me to be a theoretical question that cannot be answered positively. While bees are quiet, let them alone; when not quiet, cool off the cellar. If there is any certain rule, I should like to know it myself.—J. E. POND.

Build an under-ground special repository, which will need no such fussing to keep the required temperature. Mine varies only from 43° to 46° during the whole winter. When I used a cellar under the house, I kept the temperature down by carrying ice or snow into the cellar.—G.M.DOOLITTLE.

Do not trouble about the *outside*. Hang the thermometer *inside*, on a level with the lower tier of hive, and see that it records about 45° regularly. If it gets warmer than that in the cellar, "cool" it; if it gets colder than that, warm it. Take care of the inside—do not fret about how cold it may be out-doors.—J. M. SHUCK.

I do not think that it is necessary to open the doors of a winter repository to "cool off" the bees. The air should be admitted from an adjoining room, if practicable, and if not, the air should be let in slowly until the temperature is lowered sufficiently to quiet the bees. It is the habit of my bees to sink into repose when the temperature goes down, and to arouse themselves and become active when the temperature goes up. But some bee-keepers are trying to reverse this habit.—G. W. DEMAREE.

If proper methods of ventilation are provided when the bee-house is constructed, the temperature can be controlled without opening outside doors. But if such are opened, it should be some colder outside to be of value. The temperature should be kept at about 45°.—THE EDITOR.

Convention Notices.

☞ There will be a meeting of the Susquehanoa County Bee-Keepers' Association at the Court House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.
H. M. SEELEY, *Sec.*

☞ The 11th annual session of the Texas State Bee-Keepers' Association will be held in the apiary of W. R Graham, of Greenville, Hunt Co., Tex., on May 1 and 2, 1889. All bee-keepers are invited. The last meeting was held here last May, and was the best ever held. So we look forward to a good time next May. A cordial welcome and hospitality will be tendered to all who come. G. A. WILSON, *Sec.*

THE RETURN HOME.

I see the hills of home again,
Again the *bees* are humming ;
And slowly down the scented lane,
With measured step in single train,
The cows at eve are coming.

I wander down familiar ways,
I look for old-time faces ;
While memory paints again the days,
And strongly with her touch essays,
To find the old-time places.

I see the house where first I knew,
The summer's golden splendor :
Here first my happy fancies grew,
And dreams that fairyland was true,
And life was sweet and tender.

Strange faces meet me at the door,
And stranger voices telling ;
And so, my dream of home is o'er,
And I shall find it never more,
In stranger countries dwelling.
—*Old Homestead.*

CORRESPONDENCE.

LARVAL FOOD.

What is Used to Feed the Brood of the Bees?

Written for the American Bee Journal
BY L. STACHELHAUSEN.

On page 582 of the AMERICAN BEE JOURNAL for 1888, Query 572 asks for the amount of honey used for brood-rearing. The most of those who reply say, "I do not know." Some guessed, and guessed very high. So this seems a question, which even veterans cannot answer, but we are not quite as helpless.

Von Planta analyzed the larval food. The composition of it for worker larvæ, including the water it contains, is as follows :

Water	71.630
Nitrogenous matter	14.528
Fat	1.941
Glycose	7.844
Other parts	4.057

We see that nitrogenous matter is the most important part of this food, and this comes, without doubt, from the pollen.

Von Planta found in dried pollen of the hazel the following :

Water	4.98
Nitrogenous matter	31.63
Ash	4.01
Cane sugar	14.70
Starch	5.26
Other matter	40.42

We can easily calculate that to 100 parts of larval food for workers, $\frac{1452\,8}{31.63}$ which equals 45.9 parts of dry pollen, is used by the bees to get plenty of the nitrogenous matter. These 45.9 parts of pollen contain $\frac{45.9 \times 14.7}{100}$ which equals 6.75 parts of cane-sugar, and they are changed to F. I glycose in the stomach of the nurse-bee. The starch of the pollen is likewise changed to sugar. So we see that the pollen contains more sugar than is necessary to prepare the larval food.

These analyses make it quite certain that the larval food for workers is prepared from pollen and water only, and no honey at all is used for this purpose.

It may be possible, that after the fourth day the worker larvæ receive a food which contains more sugar, but Von Planta says this is not probable.

We have observed, that in early spring, if no honey can be gathered by the bees, and breeding is going on rapidly, a great amount of honey is consumed by the bees. This seems quite contrary to the above facts. But we know that the bees consume some honey to secure the necessary high temperature. If bees do not breed, the cluster is quite contracted, and it will take less fuel to warm this small cluster ; but if in the spring the cluster is expanded as much as possible, to get room for the brood, the amount of fuel needed is very great. and we can observe this by the rapid decrease of the honey in the hive.

Again in summer, when the outside temperature is nearly as high as necessary for the brood, the bees need no fuel. This explains why a strong colony needs less honey, comparatively, than a weaker one. Surely the bees will consume some honey in summer, too, but now they need it to change it to power, which moves their wings, etc. It seems very probable that pollen is the food for the bees, which builds up the body, while honey is the fuel, which warms and moves it.

If we find that pollen only is used to feed the larvæ, we may ask, what amount of pollen is necessary for this purpose ? I do not know this, but I have some reasons to believe that surely not more than one pound of pollen is used to feed 3,000 larvæ—very probably less.

This matter is of great practical importance. At first we see that a very warm quarter in the spring will save some honey, and even more than in the winter. Second, that by caging the queen in summer, to avoid breeding, the surplus honey cannot be increased, and this idea has to be abandoned—the sooner the better.

It is said, that it is no difference, if pollen is used for the brood, or honey—both have to be gathered by the bees, and if they need no pollen they could gather some honey instead. But this is not true, because the bees fill up the brood-chamber with pollen for future use, if no brood is present—what every bee-keeper surely will have observed.

Some experiments show that more honey is secured, if the queen is caged, or entirely removed for some time. I do not doubt this, but it is easily explained, if we say that the bees used the empty cells for storing honey, which in the other experimental hive were occupied by the brood. Here they had not enough cells for the honey. If we always give to a strong colony empty cells, we will see that nothing is gained by caging the queen. This caging may be done with advantage for the purpose of preventing swarming. I will not discuss this here.

Further, we see how important it is that the bees have plenty of pollen when brood is reared. Some experiments prove that for a short time the bees can rear brood without pollen. They use some surrogates which they find in old combs ; in this condition they may use some honey too, but then the larval food will be of other composition. The larvæ may not die by this diet, but surely we will rear a degenerated colony, and in many cases the bees stop breeding entirely.

Selma, Tex., Jan. 10, 1889.

WINTERING.

Method of Packing the Hives for Winter.

Written for the American Bee Journal
BY WILLIAM STOLLEY.

As usual, I winter my bees in a bee-house, open to the east and southeast. In my former eight years of bee-keeping, I packed them in hay ; put leaning boards over the entrances, and covered all with hay, to the depth of about 2 feet. This year I have somewhat changed my method of wintering, notwithstanding the fact that I have *always* wintered my bees remarkably well.

I have changed all my hives into double-walled, lined in between the walls with heavy building-paper, and ½ inch dead-air space between the walls, all around the brood-chamber. I do believe that this double wall is a more efficient protection against the cold, than hay 2 feet thick.

Ten colonies I have packed and covered with hay as usual ; but 20 colonies I have not packed on the outside, nor covered the hives at all ; but I have darkened the entrances by close-fitting boards leaning against the hives ; should I be correct in my presumption, then I will get rid of the trouble of fussing with hay about the apiary, and the danger of fire is much lessened.

Inside the hive my bees are contracted and packed with the utmost care.

The sides (inside) between the double wall and division-boards are

protected by 3-inch thick chaff cushions. Hill's device is over the brood-chamber, which is covered by a clean sheet of burlap.

Next comes a heavy, double woolen-quilt filled with cotton-batting, and all covered with a chaff-cushion 4 or 5 inches thick. The cover has four 1-inch holes, covered with wire-netting to carry off the rising moisture. Each colony has at least 25 pounds of winter stores.

On Jan. 25 and 29, my bees had, for the first time, excellent cleansing flights, except 2 very strong colonies, which, it seems, preferred to stay inside of their hives. These 2 colonies are wintering on sugar syrup, and one of them is in a New Heddon hive. All the other colonies are wintered on natural stores.

I found all of my bees to be in the very best condition, but few dead bees, dry, and no signs of diarrhea. So far the season has been exceptionally mild, but still too cold for bees to fly except on the two days mentioned. The mercury went but twice, 10° Fahr., below zero, while in the winter of 1887–88, it was several times 30° below, and once even 35°, Fahr., below zero.

I have for two years tried the New Heddon hive, on a small scale, and I like it better the longer I use it. For the production of comb honey it is *the* hive that I shall adopt. The Heddon hives I have packed inside in a box, allowing chaff-packing of 6 inches outside the hive, all around, and in other ways they are arranged like all the rest.

Grand Island, Nebr., Jan. 30, 1889.

WINTER LOSSES.

Preparing the Bees to Prevent Losses in Winter.

Read at the Maine Convention

BY F. F. GRAVES.

I claim no new discovery, nor have I any new theory to advance, but I claim that the winter problem has been long solved. The matter is no longer a problem, but a fact, governed by certain philosophical conditions. Before the advent of the frame hive, when all bees were kept in logs or boxes, whole apiaries were swept away in one winter. Then the cause could not have been so easily known or prevented. With the movable-frame everything is changed; the bees may be at any time examined and put in the proper conditions, consequently they may be safely wintered on the summer stands, or in the cellar.

It is not a certain temperature that is required, as the most successful bee-keepers in cellar-wintering differ almost as many degrees in their treatment, as there is change in a hive out-of-doors. One very successful apiarist, who never lost any bees in the winter, claims that the correct point is about 45° above zero; while others winter as successfully in a fruit cellar, which is kept as near the freezing point as possible—32° to 35°.

More bees die every year from diarrhea than from all other causes combined. Our bees die, and we simply mourn our fate and do nothing to avert a recurrence of the calamity. We attribute the loss to this disease, and go no further, when in reality diarrhea is but a secondary agent—the result of a primary cause, which should be sought out, removed, and guarded against in the future.

Reports are published every year of bees wintering under the most adverse circumstances. The success is attributed to "good luck," and no careful examination is made; so what might be valuable information is lost.

We have worked too much by theory, not using enough common-sense. We have been dodging the main issues, and theorizing on upward or downward ventilation, giving our whole attention to loose or solid packing, writing long articles on the great advantage of a dead-air space, when our bees were starving or contracting diarrhea by eating nauseating and unwholesome food. We have lost sight of some of the most important principles in our great rush after improvements.

The new races of bees for a time absorb our whole attention. Long tongues and three bands have been more sought after than hardy and industrious workers, and as a result, prolificness may have been obtained at the expense of hardihood.

The great question of all advanced apiarists is how to prevent increase. Any race of bees will multiply fast enough. The great object is to have the bees strong in early spring. This can only be done by successful wintering. Some hives may contain bees enough in the spring, but they may be in such a feeble condition as to be of no value whatever. They would be all summer building up, storing no surplus, and requiring a large amount of feed to carry them through the winter. The attention given through the season, and the feed would amount to more than their value. This is no isolated or extreme case. Such cases are too common, and the cause should be ascertained, a remedy applied, and a repetition prevented.

There has been so much written and said about the best hives, best frames, best bees for business, that we have attributed our winter loss and spring dwindling to our particular strain of bees, or hive, or way of wintering; or, what is more common, to the bad weather, when in fact the hive, the weather or place had nothing to do with the disaster.

To winter successfully, the great and all-important requirements is plenty of sealed honey; on this the bees will endure almost any change of temperature or withstand the inconvenience of almost any kind of a hive. Honey gathered in the first part of the season, stored in clean combs, well sealed, with little or no pollen, is almost all that is necessary to successfully winter a colony of bees, and have them come out in good condition to begin the spring work.

The extractor is the greatest invention for the bee-keeper since Father Langstroth introduced the movable frame. Its good qualities have been overrated, but it has been somewhat overworked. We have been too anxious to make a large showing. We have extracted too snug, and left our bees too little honey, retarding their fall breeding, and allowing them to go into winter quarters with too few young bees, and the old ones overworked and enfeebled by braving the cold, windy weather, in vain efforts to replenish their fast failing stores after the frost had withered every blossom.

Feeding Bees for Winter.

The first care of the apiarist should be the perpetual welfare of his bees. With this thought in mind, he should save all frames of capped honey during the season when he finds such in his manipulations, until he has four for every colony. These should be carefully saved, and put in by the side of the cluster, when the bees are prepared for winter.

Late-gathered and unsealed honey is by the bees' breath and change of temperature rendered so thin that it will run out of the cells and down on the combs. This the bees, by their natural desire for cleanliness, will lick up and thereby become so over-loaded as to cause diarrhea.

Honey gathered after the frost has touched the blossoms, being chemically changed thereby, is not fit for the bees to eat when in confinement—another cause of diarrhea.

Syrup made of granulated sugar is far preferable to fall honey, as it contains no pollen and will not readily sour; but it is very difficult to make it of the proper consistency. If it is too thin, it will run out of the cells; if too thick, it will candy, and become so hard that the bees will not eat it. "The best is the cheapest" is the general rule, and it is no exception in this

case, as granulated sugar syrup is but little cheaper than extracted honey, and the time and trouble of feeding, together with the risk of robbing, more than balances the difference in cost between the few pounds needed to last a colony through the winter.

Another great disadvantage in late fall feeding is the liability of stimulating the queen to lay a great many eggs. These, as they begin to develop will induce the bees to bring in pollen, which, at this season of the year, is not suitable for bee-food. Brought in at this time, it is more likely to be put into cells partly filled with honey, and be eaten during the winter, which is another fruitful cause of diarrhea.

Another evil result of late breeding is occasioned by the bees deserting the partially developed larvæ in their efforts to cluster to keep warm during the changeable fall weather. The brood thus abandoned chills and dies, and their decomposing bodies become a source of pestilence that is likely to cause the destruction of the whole colony before spring. All this can be prevented by feeding the bees during the early season, or by giving them frames of sealed honey when they are being prepared for winter.

Waterville, Maine.

ITALIANS.

Characteristics of the Queen, Drone and Worker.

Written for the American Bee Journal
BY DAYTON E. BARKER.

I have received a number of inquiries as to which is the best variety of bees, and especallly about the Italians. Quite a number of different varietes of bees have been imported from various countries during the last twelve years, but as yet none received such universal praise as the Italian bees.

In form, the queen is long and slender, and very symmetrical in all her parts. The whole abdomen of most Italian queens, except the last segment, is of a beautiful golden color. The color of queens vary somewhat, some being darker than others, but all produce fine workers. Her movements among the bees on the combs are well directed and graceful, and on account of her quiet disposition and fine color, she is easly found by the operator, on the combs. I have often seen the queen laying, while holding the frame in my hands.

Italian queens are also more prolific than the common black queen, thus keeping their colonies strong. They also cast larger and earlier swarms than our native bees.

The drones, or male Italian bees, also vary in color, but in general the three first segments or bands are yellow, and somewhat scalloped with black. I have had drones in my apiary, of which nearly the whole abdomen was covered with yellow, and I always prefer to breed from these dark drones; especially those reared from queens that mated with a black drone have a tendency to produce workers that do not show the fine yellow bands so uniformly as they should. My advice is, if possible, not to breed from such drones.

I now come to the point that decides, in the opinion of breeders, the purity of the queen. When the queen is pure, and purely mated, the workers are fine-looking, have three yellow bands around the abdomen, and very symmetrical bodies. They possess agility and strength in a very marked degree, are excellent nurses, always keeping the brood up to the highest possible point. They also have the admirable trait of quietness when the combs are being handled. They do not fly off or crawl over and cluster on one end or side of the combs, but keep their places quietly until driven away by the operator. During the honey season they are very easily handled, but when swarming, they are crosser than our native bees. When robbers are around in the fall, they become fierce, and defend their store well. They also defend their homes in a superior manner against the wax-moth. If properly cared for, a handful of workers with a good queen will soon build up to a powerful colony. As honey-gatherers they are certainly far superior to common bees, working well on mammoth red clover. This grand point, in connection with greater prolificness, beauty and quiet disposition, has made them general favorites.

St. Joseph, Mo.

VENTILATION.

Bee-Cellar Ventilation — Packing Honey for Shipping.

Written for the American Bee Journal
BY C. THIELMANN.

I wish to write of two things which do not agree with my own experiments; the first is, the ventilation of bee-cellars, and the other, crating honey upside down.

Ventilating Bee-Cellars.

Mr. Doolittle tells us that his bees winter, and have wintered, nicely for a number of winters, without any ventilation of his bee-cellar. This we have no reason to doubt, as Mr. D. is held in high esteem by bee-keepers; but we must consider the different circumstances, and the way Mr. Doolittle puts his hives into the cellar; also the make-up of the cellar itself compared with those of most of the other bee-keepers.

In the first place, a great majority use hives with tight bottom-boards, and therefore they cannot remove them when they store the hives in the cellar, and have only the hive-entrance for ventilation, instead of a suspended cluster with circulating air all around it, as with Mr. D's way. This, of course, accounts largely for the differences of cellar ventilation: also for the difference of the best degree of temperature for the bees, in ordinary bee-cellars.

I would estimate that bees suspended in the hives without bottom-boards, would winter better in the same cellar with from 6° to 10° higher temperature, than bees with only an entrance in the hive $\frac{3}{8}$x12 inches; and bees suspended can surely stand it better without ventilation of the cellar, than those in a hive with the bottom-board on, as the former have more free air around the cluster; but the number of colonies plays a big part in the matter.

If Mr. D. had 150 to 200 colonies in his cellar instead of only 50, he would find that the ground on the sides and top of his cellar is not porous enough to supply sufficient pure air for them all; and would be glad that he made ventilators, which he could open the same as I do, this mild winter, and keep the bees healthy.

I am convinced that pure air, with the right temperature in a bee-cellar, has more to do with the safe wintering of bees than anything else, not excepting honey-dew or other unsuitable food, although good sealed honey is the best winter food for bees, no matter what the "sugar man" says.

Crating and Packing the Honey for Shipping.

Mr. Doolittle recommends packing the sections in the crates in the same position as they were built by the bees in the hives, and finds that less honey is broken in transit, than if they are packed upside down. This is contrary to my experiments.

I used to pack my honey the same way as the bees built it in the hives, whereby I had considerable losses by breakage of the combs; but of late years I crate most of the sections upside down, and crate only those sections the other way, which are built solid to the wood on the lower end, and others which have a few cells that are not sealed over, and have also a good support of comb below.

Since I have practiced the above method, I have had but little breakage.

I shipped 5,000 pounds to one man, which was re-loaded twice on the cars, and none was broken. In the last five years I have shipped about 40,000 pounds of comb honey, of my own production, some of it going over 1,600 miles, and only two broken crates were reported; therefore I would advise bee-keepers to pack all the sections upside down, which are not solidly attached to the lower part of the sections. By so doing, the shipper will save money, and also those who buy the honey.

Besides my own experiments, I wish to give a little further information, which I witnessed a few days ago.

Last week I went to St. Paul, Minn., on business; while there I called on a man to whom I have sold most of my last year's crop of honey. He showed me a lot of rather bad-looking comb honey of last year's crop, from all parts of the United States. Some was from California, some from Chicago and other places; some was broken, and some was partly candied. There was 14 crates of it, from almost as many bee-keepers, judging from the appearance of the crates.

This man handles about 30,000 pounds of honey annually. He asked me if that honey could not be brought back to its liquid state. I told him that it could.

"How much would you charge me to do it?" he asked. I told him that it was quite a task to do it, and after it was done, it would not be very nice for table use; the combs would have to be broken in order to liquefy it, without spending too much time with it, and then it would be only bee-food, or honey for pickling meats, etc. After some more talk, he sold me the honey at a low figure.

After the honey arrived at my home, I unpacked it, and found it to be as I expected.

The honey was put up by many different parties, only a small part of it being put upside down. Among it was two crates of California honey, with very tender combs, and only the outside sections were candied; this I found but little broken, but most of what was put up in the same way as the bees had built it on the hives, was badly smashed, and a good deal had leaked out of the crates. This latter class was almost worthless to the trade. My customer could probably sell what was not broken so badly—the upside down part; but he said that he would let that go with the lot, if I would take it all. There was a loss of 75 per cent. on this honey.

By the above, it will be seen that we should be careful not to pack the sections with the weakest part of the comb downward; if they have a good footing, they will withstand a great deal of rough handling.

The weather is nice here, but we have no sleighing.

Thielmanton, Minn., Jan. 30, 1889.

BEE-DIARRHEA.

The Distance Bees Go for Honey, etc.

Written for the American Bee Journal

BY C. F. WEBB.

I have handled bees for 40 years or more, and I do not pretend to know much about them either; but what little I do know, that I think would be of interest to any one, is freely given. I have 200 colonies of bees, of which two-thirds are pure Italians, the rest being crossed with the big German gray bee, and as honey-gatherers I like them best.

I keep my bees during the winter in a cellar under the dwelling-house, and my plan for ventilation is the same as a stove—pure air comes in at the bottom, and impure air escapes at the top. In summer I keep them on the north side of a hill, where the combs will not melt down, and when it is warm enough for the bees to fly there, it will be warm enough for them to fly anywhere; also there will be no danger of them flying away, and getting chilled, and never returning to the hive.

I have found a great many bee-trees in my lifetime, and with one or two exceptions, I have found all on the north, northwest and northeast side of the timber or hill.

Distance Bees Travel.

I never knew bees to go quite 40 miles, for honey, but I have known them to work all of six miles away, and work strongly. I would refer the reader to the Agricultural Report of 1870-71, where it claims that bees worked 8½ miles away.

The Cause of Bee-Diarrhea.

In regard to what is called "bee-diarrhea," I will say that my bees are never troubled with it. I believe if the hive is so arranged as to prevent the bees from sweating, there will be no danger of the diarrhea. That is my experience.

Bees can be given the diarrhea in 20 minutes by sweating them. I have had some 8 or 10 colonies succumb to the disease right in midsummer, by not giving them plenty of air, and thereby causing them to sweat. Upon examination I found them all dead, and an almost unbearable stench arising from them, the same as from cholera.

Where wild bees are in hollow trees with porous or worm-eaten wood above, so that the impurities may pass out, the bees never have the diarrhea; but where the trees are solid above the hollow, I have known them to die from that disease. If any one knows anything to the contrary, I would like to hear it through the BEE JOURNAL.

Union Centre, Wis., Feb. 6, 1889.

COLORADO.

Report of the State Bee-Keepers' Convention.

Condensed from the Colorado Farmer.

The Colorado Bee-Keepers' Association met at Denver on Jan. 16, at 10 a.m., President Milleson in the chair. The minutes of the last meeting were read and approved.

The Secretary and Treasurer presented their reports, which were referred to the executive committee.

A discussion ensued on adulterated honey, and Elwood Easley asked if artificial comb honey were now manufactured. Both the President and Secretary answered that no market had ever been affected by such artificial honey. If such could be made, why did they not produce it this year, when honey was scarce?

"Dr. King," said Mrs. Plumb, of Boulder, "had some honey in a store window; some men were looking—one agreed to show that it was artificial because the 'holes' were of different sizes, and that showed that two different machines were used. He alluded, of course, to the drone and worker cells."

E. B. Hutchinson objected to the idea that if bees were fed something that was not right it was adulterated. It is pure honey if the bees gather it from buckwheat, although it might be poor, just as turnips fed to a cow will injure the taste of the milk, although it will be of poor quality.

The convention then adjourned until 1:30 p.m.

At the afternoon session Mr. Pratt reported, from the Committee on Legislation, in favor of county inspectors to prevent foul brood. Adopted.

Mr. Pratt suggested that each bee-keeper should write a personal letter to the Legislator with whom he is best acquainted, showing the necessity for Legislation to check foul brood.

The Secretary urged members to fill out his statistics blanks. He had reports already showing 129,000 pounds as our honey product. The President said if he made it 200,000, it would not be incorrect, as bee-keepers were too slack in reporting.

President Milleson read his annual address, and presented the Association with a handsome black gavel adorned with the gilt letters, "C. S. B. A.," and decorated with a bee.

Mr. Pratt moved that the gavel be accepted by this Society with thanks, as a memento of Mr. Milleson's public and private devotion to the interests of apiarists.

Bee-Houses.

Mr. De Vinney asked Mr. Knight the advantage of a bee-house.

He replied that one could handle twice the number of bees he could in hives.

Mr. Pratt said, after hearing Mr. Knight's description, before and after seeing his house, he had erected one, and thought it well suited to this climate. His is 8x16 feet, with a matched floor. It stands a foot from the ground, and he will bank it up to keep the wind from blowing under it. The covering is of matched lumber, his boys having shingled it. He lined it with tar paper. It is only 5 feet high—it ought to be six. It has no windows, but a gable which opens; the sides are battened. It holds as much as 44 hives, and is cheap; as an ordinary box will do for a hive.

Mr. Knight spreads a burlap over the frame. Pound sections are placed on the top. He believed they would winter better than when out-of-doors.

Mr. Cushman, of the Delta Association said he noticed his "A B C" book advocated placing hives 7 feet apart, yet these were close together. Is there not danger for a fight where they are so close?

Mr. Knight—The boxes are two feet apart, and the hives above one another; one has 38, another 62 colonies. The alighting-boards are differently colored, and the entrances are different, so there is no trouble.

Mr. Pratt, last summer, had his hives differently colored, yet they were a few inches apart in a row.

Mr. Pratt moved that a standing committee of three be appointed on the disease of bees. Carried.

The President then appointed R. H. Rhodes, H. Knight and Wm. Davis.

Elisha Milleson was re-elected President unanimously; J. M. Clark was re-elected Secretary; and Mrs. R. H. Rhodes, of Arvada, was re-elected Treasurer. For Vice-President-at-large, Mrs. Millie Booth was re-elected. County Vice-Presidents, Alfred Cushman, Montrose; H. Knight, Arapahoe; E. Easley, Jefferson; Mrs. S. J. Plumb, Weld; J. L. Traecy, Boulder; A. C. Alfred, Larimer. Other Vice-Presidents were left for the executive committee to appoint.

S. R. Pratt was elected on the Executive Committee.

California Honey.

Mr. Cornforth said that for 3 to 5 years there had been a shrinkage of about 15 per cent. of California honey. This year the shrinkage had been greater. Last year the sales of California honey amounted to about $45-000, the Eastern honey to about $3,000, the import being a little less than $50,000. Our honey is preferable to California, as Mr. Clark's way of packing 24 pounds makes it more salable than the 50-pound packages of California honey. Moreover, California has not been as careful in selecting, the lower sections being of inferior value. Uniformity should be practiced. In California there are four assortments; about two years ago a firm put it up in blue boxes with a glass front. They have made quicker sales; the average weight of sections is about one pound. He was pleased to see our State growing; the Horticultural Society has grown from nothing; creameries dot our State, and bee-keepers are organizing. These organizations will grow with the State, but other States are growing, so there is no possibility of flooding the market with first-class honey if properly put up. When you are organized and rely upon local trade, you can do nothing. The creameries were unheard of five years ago, now farmers can send their milk to the creamery, and the butter is more uniform than if many tried to work alone. He believed our honey would bring more in European markets than any other honey, as our comb honey is so bright and clear. The amount handled in California is fabulous. He had seen buildings 25x50 filled, and they said that was nothing.

Levi Booth said that the "Pure-Food" bill now before Congress was just what we needed to protect us, and moved that we ask our representative to further its passage. Carried.

Honey-Plants for Bees.

The question-box was opened, and to the question, "Which is the best honey-producing plant?" Mr. Knight said clover was the best, alfalfa gave the most honey.

Mrs. Rhodes preferred sweet clover, as alfalfa did not always produce honey.

Mr. Cushman said that sweet clover was a nuisance in the hay crops; they got more than they wanted in their alfalfa seed from Utah. Alsike clover had been recommended; the Colorado bee-plant was good, and had been sold in California for a high price. In his region there was a barren desert, but water would make the land do well.

President Milleson said sweet clover was the hardest to kill of any of the clover plants, but you could not produce one-tenth as much honey from the same ground on any other plant. If you were to plant ten acres alone for honey-production, it will not pay as much as alfalfa; because you can get hay and honey. Let it stay before cutting; if you lose one cutting you will gain.

Rev. Rhodes said that sweet clover was the only plant that would yield after a frost. If you have hay-seeds in your alfalfa, you cannot sell it well; but keep it for seed, and you can sell it well. He had said we could produce more honey than any other country with our alfalfa, but we cannot use alfalfa for hay and honey both. One year they had no bloom but of the broad-leafed milk-weed honey; it was as nice as any honey he ever ate, so it was hard to say which was the best plant. The main objection to sweet clover was, that it was good for nothing but honey.

President Milleson asked if he had not been obliged to catch his bees and wash off their feet on account of the honey sticking to them.

Levi Booth said you need not fear sweet clover, if you cut the alfalfa, as it was a biennial and died out, but you must cut in the ditches.

Rev. Rhodes said you could kill the milk-weed if you cut it just before it was ready to bloom. It would bleed to death.

The convention then adjourned until Wednesday, March 20, at 10 a.m., to meet at the Chamber of Commerce.

J. M. Clark. *Sec.*

HONEY-PLANTS.

Hints to those Who Want a Good Crop of Honey.

Written for the American Rural Home

BY R. S. RUSSELL.

Who is there who has handled bees and made them his associates, who will doubt for a moment that these industrious little misers will appreciate any improvement in their home and plantation, and doubly repay any judicious outlay toward supplying them any suitable plants from which to extract the honey? I believe that a bee is not happy except when employed gathering the sweets that Nature stores in certain plants.

Now is the time to lay the foundation for an abundant honey harvest. If you have no willows near your apiary, procure a few roots or cuttings, and plant in low land near the apiary. This will bring the earliest pollen, which is the most useful. The bark

will crack late in the fall, and furnish a harvest of honey after frost has killed all the flowers.

Also plant a few soft and hard maples, and tap lightly in two or three places early in the spring. These trees should be near the house, as many bees are chilled and lost in rambling for these early sweets.

Be sure and spare all the basswood on your farm, and plant a few more in old pastures for shade. Plant catnip, the more the better, near the apiary. This is fine for the young bees. Spare all the golden-rod when mowing the fence-corners, also all asters. The bees will tell you what they are when in bloom, if you do not recognize your friends. Sow a patch of buckwheat on July 1 and 20, and also on Aug. 10 and Sept. 1.

Last, but not least, procure at once a supply of Simpson honey-plant seed. It can be sown in hot-beds, and transplanted the same as cabbage, or sown in open ground. It will grow anywhere, in fence corners or waste ground, in shade or in cultivated fields, planted 2½ feet apart. It can be sown in your woods pasture. It is a certain grower, and will "get there" whether cultivated or not. This is beyond doubt by far the best honey-plant of all, giving a steady flow of good honey from the middle of July until killed by frost. The honey accumulates in the cup-shaped flowers, and, if all is removed, it will almost immediately fill up again, thus affording an inexhaustible supply faster than the busy workers can remove and store it.

I have noticed no disease in my apiary since I have raised this honey-plant. I think the secret is, it keeps the bees employed gathering good, healthy honey, instead of trying to extract it from decaying fruits and vegetables in the fall months, which they are sure to do unless they can work on something better. It is a medicinal plant, but is not eaten or disturbed by stock of any kind, and will take care of itself after the first year. It is not a noxious weed that will take possession of your farm, but is easily exterminated.

I can imagine no lovelier stroll than through my woods in August and September. The honey-plants are in full bloom, and the beautiful Italians make the woods musical from daylight till dark. I will not speak of the merits of the different varieties of clover, as of necessity they will be sown, and help to round out a full season for the most industrious creature of God's creation.

Zionsville, Ind.

☞ The DesMoines County, Iowa, Bee-Keepers' Association will hold its annual convention in the Court House at Burlington, on April 23, 1889, at 10 a. m. All bee-keepers are invited. JOHN NAU, *Sec.*

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Apr. 23.—DesMoines County, at Burlington, Iowa.
John Nau, Sec., Middletown, Iowa.

May 1, 2.—Texas State, at Greenville, Tex.
G. A. Wilson, Sec., McKinney, Tex.

May 4.—Susquehanna County, at Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 21.—Northern Illinois, at Pecatonica, Ill.
D. A. Fuller, Sec., Cherry Valley, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Fine Winter for Bees.—Mr. D. Y. Kennedy, Batavia, Iowa, on Feb. 9, says:

We have had a fine winter so far for the bees. Last May I had but 15 colonies, and but half of them were strong. I took 800 pounds of comb honey, and left the brood-chambers full of fine honey; I now have 59 colonies in fine condition—44 in the cellar, and 15 in chaff hives out-doors. I had swarms as late as Sept. 11, that are now in good condition, with plenty of honey to last them.

Wintering Well.—Mr. L. D. O'Dell, Protection, N. Y., on Feb. 3, 1889, says:

I commenced the season of 1888 with 15 colonies, increased them to 38, and took 500 pounds of surplus honey in one-pound sections. I put my bees into the cellar on Nov. 18, and, to all appearances, they are wintering well. My first year's experience with bees has been very satisfactory, considering the poor season.

Season of 1888.—Clarkson Pemberton, Lamoille, Iowa, on Feb. 11, 1889, writes:

I commenced the season of 1888 with 19 colonies, and increased them to 30, by natural swarming. My bees looked well in the spring, and I hoped for a big yield of honey, but white clover and linden failed, and all the surplus I got was from wild flowers, which yielded well. I obtained 20 pounds to the colony, of surplus at last, for which I am thankful. My bees were put into the cellar in good condition, and I hope for a better crop in 1889.

Small Hives and System of Management.—B. Taylor, Fillmore Co., Minn., on Feb. 5, 1889, writes as follows:

I have kept bees on a large scale for the last 25 years, and make it a specialty. I am wintering 260 colonies in two apiaries. I have a shop 22x40, with steam power, and perfect machinery for making everything connected with my business. I have practiced the identical system, and used the very same small hives mentioned as new in the BEE JOURNAL by Dr. Tinker, for the last 8 years, and have my bees in such hives now. I think that I have a better hive for that system than anything yet offered. I will send you one with its honey-board and fixtures for your inspection, and if you think my long experience on a large scale with such system and hives would be interesting, I will do my best to describe them. I secured 7 tons of comb honey by it, in the past poor year. I do not work my bees for experimental purposes, but solely for honey, and I have no supplies of any kind for sale. I have used 100 hives with closed-end frames, but I have discarded them for one with all its good qualities, and none of its faults—for serious faults it has.

[Being an extensive and practical honey-producer, we shall be pleased to have Mr. Taylor describe his management for our readers. We want the best there is in every line of practical work.—ED.]

Starting Apiaries.—L. Wayman, Chanute, Kans., on Jan. 30, 1889, writes:

I commenced bee-keeping here in the spring of 1887, with 2 colonies, it being a poor season. One of the colonies starved, and the other one some person stole, leaving me none in the spring of 1888. I bought 7 colonies, and lost 2, thus leaving me 5. I have just finished stocking my apiary of 22 colonies here at home to-day. I am putting in an apiary of 20 colonies in Arkansas, having bought 11 of them. The last two seasons were very poor, but not so poor as in some of the older States, judging from the reports in the BEE JOURNAL. The winter is very mild here.

Bees Flying Half the Time.—Mr. James Kincaid, Clay Centre, Nebr., on Feb. 8, 1889, writes:

I started with 9 colonies last spring, increased them to 25, and secured 600 pounds of honey, mostly comb. Our honey here last season was fine—better than we ever had before. People are taking quite an interest in bees, and some are making it pay well. Bees do well, as a general thing. No bad disease has affected them yet, and the moth has not troubled any. We have a fine class of bees, mostly Italians, some that are not pure, but high grades. We have had a very fine winter, with but little snow, and not much cold weather. I am wintering my bees out-of-doors; some are packed in chaff, and some are not. They are all alive, and seem to be all right so far. They are flying about half of the time.

Chloroform for Bee-Stings.—H. Link, Millard, Nebr., on Feb. 6, 1889, says:

In regard to a remedy for the sting of a bee, often alluded to in the BEE JOURNAL, I have for 12 or 15 years used chloroform, and have always found relief from pain instantaneous upon an application, so have a number of my family, and many friends to whom I imparted the fact. With a small bottle in the outer vest pocket, with a solid cork and well projecting, so as to be readily withdrawn by the teeth when one hand is engaged—the suffering is reduced to a bare knowledge of the fact. By "solid cork," I mean one free of defects that render so many of them readily to break. In 31 years residence in the prairies of Nebraska, I have had many patients that had been bitten by the rattlesnake, and since finding the merit of the remedy for the sting of the bee, I have used it, and it alone, for all the subsequent cases. I give about two (never more than three) applications, full strength, to the parts bitten, and, for a time after, frequent sponging of the part; and beyond in the direction of returning circulation, with a wash of 1 part of chloroform to 6 of water, and at the start 20 to 30 drops well diluted with water, given internally, and repeated every half hour, till my judgment prompted a discontinuance. The relief has been prompt and complete in every instance.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of boney for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Honey.—We have for sale a quantity of Extracted Houey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

Yucca Brushes, for remeving bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

Simmins' Non-Swarming System, and the AMERICAN BEE JOURNAL for one year, for $1.25. The subscription to the BEE JOURNAL may begin anew at any time.

We Supply Chapman Honey-Plant **SEED** at the following prices: One ounce, 40 cents; 4 ounces, $1; ½ pound, $1.75; 1 pound, $3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Good Enough.—Andrews & Lockhart, of Patten's Mills, N. Y., on Oct. 13, 1888, wrote as follows concerning their use of the advertising columns of the AMERICAN BEE JOURNAL:

We got more orders from our advertisement in the AMERICAN BEE JOURNAL than from all the other bee-papers put together.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Magazine	1 50	1 40
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Cook's Manual (**old edition**)	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of of any other papers. Send for such to the publishers of the papers you want.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

Honey and Beeswax Market.

SAN FRANCISCO.

HONEY.—White comb, 10@11½c.; dark, 6½@8c. White extracted, 6½c.; light amber, 5¾@6c.; dark amber, 4½@5½c.
BEESWAX.—18@22c.
Jan. 25. O. B. SMITH & CO., 423 Front St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 17@18c.; best 2-lbs., 16@17c. Extracted, 8@9c. The trade is dull.
Jan. 19. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 16@17c. Sales slow. Extracted, 9@10c.
BEESWAX.—22@23c.
Feb. 11. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 16@17c.; 2-lbs., 14@15c. Good dark 1-lbs., 13@14c.; 2-lbs., 12@13c. Buckwheat 1-lbs., 13@14c.; 2-lbs., 11@11½c.—Extracted, 6½@8½c., depending upon quality and style of package. Market dull and stock sells slowly.
BEESWAX.—22c.
Jan. 24. S. T. FISH & CO., 189 S. Water St.

ST. LOUIS.

HONEY.—Choice white clover comb, 13@15c.; fair 11@12c.; dark, 8@10c. Extracted, dark, in barrels, 5@5½c.; choice, 5½@6c.; in cans, 6@7½c. Market is quiet but steady.
BEESWAX.—20c. for prime.
Jan. 17. D. G. TUTT & CO., Commercial St.

CHICAGO.

HONEY.—Best 1-lbs., 17@18c. Extracted, 7@9c. for best quality, according to body, flavor and style of package. Trade is limited to local consumption. Off grades of comb honey are slow at lower figures than given above. But few will buy dark comb.
BEESWAX.—22c. R. A. BURNETT,
Jan. 17. 161 South Water St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 15@16c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c.; fair 1-lbs., 12@14c. Extracted, white, in kegs and ½-barrels, 8½@9c.; amber in same, 7½@8c.; in pails and tin, white, 9½@10c.; in barrels and ½-barrels, dark, 5½@6c. Market dull. The very best sells slowly, and inferior qualities are neglected very much. Damaged, broken and leaky comb honey not wanted.
BEESWAX.—22@23c.
Jan. 10. A. V. BISHOP, 142 W. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@16c. Demand from manufacturers is improving.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Feb. 12. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—White 1-lbs., 16c.; fall, 14c.; California 1-lbs. 16c.; white 2-lbs., 14c.; extra 2-lbs., 13c. Extracted, white California, 8c.; amber, 7c. Market dull.
BEESWAX.—20@22c.
Jan. 22. CLEMONS, CLOON & CO., cor 4th & Walnut

KANSAS CITY.

HONEY.—Choice 1-pounds, 15@16c.; dark 1-lbs. 12c.; 2-lbs., 14c.; dark, 11c. White extracted in 60-lb. cans, 8c.; amber, 7c.; in barrels and kegs, 5@8c. Demand good, prices steady, and stock large.
BEESWAX.—None in market.
Jan. 4. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—White, in 1-lb. sections, 15@16c. Extracted, 9@10c.
BEESWAX.—20c.
Jan. 1. J. M. CLARK & CO., 1409 Fifteenth St.

NEW YORK.

HONEY.—We quote: Fancy white 1-lbs., 14@15c.; 2-lbs., 12c Fair white 1-lbs., 14@15c.; 2-lbs., 10 to 11c. Buckwheat 1-lbs., 10@11c.; 2-lbs., 9@10c. Extracted, white, 7½@8c.; dark buckwheat, 6@6½c. which is in good demand. Market dull, except for extracted buckwheat; for all other kinds it is quiet, owing to unseasonable weather, we believe.
HILDRETH BROS. & SEGELKEN,
Jan. 10. 28 & 30 W. Broadway, near Duane St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½ cents; amber, 6c. Comb, white 1-lbs., 13@14c.; 2-lbs., 13c.; amber, 10@11c. Demand is of a jobbing nature, and arrivals are small.
BEESWAX.—19@20c.
SCHACHT, LEMCKE & STEINER,
Jan. 8. 16 & 18 Drumm St.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

Africa is a prime subject of interest, and Emma Raymond Pitman's article in *Frank Leslie's Sunday Magazine* for March, on "Slavery and Missions on the East Coast of Africa," will tell much about that part of the dark continent which is foremost in the mind. The Mohammedan women of India are described by S. F. Norris, and P. J. Popoff contributes a valuable article on "Prejevalski's Adventures in Central Asia." There are many short articles and poems, and some beautiful full-page-illustrations.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble, and at the same time help to scatter apicultural knowledge and promote the welfare of our pursuit.

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

Cork for Winter Packing.—Its advantages are that it never becomes *musty*, and it is *odorless*. Cushions can be made of cloth and filled with the cork, for winter packing. We can supply all orders now at 10 cents per pound. Or a seamless sack of it, containing 15 pounds, for $1.00.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

Advertisements.

For Sale or Exchange,

ITALIAN BEES and QUEENS. Address to, OTTO KLEINOW,
8A1t 150 Military Ave., DETROIT, MICH.
Mention the American Bee Journal.

THOMAS G. NEWMAN & SON,

WHOLESALE & RETAIL

SUPPLIES for BEE-KEEPERS

ALSO DEALERS IN

HONEY and BEESWAX,

923 & 925 West Madison St., CHICAGO, ILL.

ALLEY'S QUEENS. Circulars & Price-List ready. Henry Alley, Wenham, Mass.

We have some ELEGANT RIBBON BADGES, having a rosette and gold Bee, for bee-keepers' use at Fairs, Conventions, etc. Price 50 cents each, by mail, postpaid.

THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL.

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN,

Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. Bound in cloth, $1.00, postpaid.

A Liberal Discount to Dealers, by the Dozen or Hundred.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILL.

THE AMERICAN APICULTURIST, Wenham, Mass. Sample Copy Free.

SECTION PRESS

PRICE, $2.00.

FOR putting together one-piece sections. Every section square, and a smart boy or girl can fold 100 in six minutes. Try one and you will never regret it. Send to your supply dealer, or to

WAKEMAN & CROCKER, Lockport, N. Y.
7A26t
Mention the American Bee Journal.

PLANT SWEET CLOVER.

WHEN it once gets a start, it furnishes permanent bee-pasturage.

WHERE IT GROWS

there is never a season of total failure of the honey crop, and the honey is equal, if not superior, in flavor and appearance to white clover honey.

We can supply the seed at the following prices: $6.00 per bushel; $1.75 per peck; 20 cents per pound—by express or freight. If to be sent by mail, add 10 cents per pound for postage. (60 pounds in a bushel).

THOS. G. NEWMAN & SON,
923 & 925 W. Madison-St.,....CHICAGO, ILLS

SEEDS GIVEN AWAY. Price Mixed Flower Seeds, 500 kinds, GUIDE, and 10c. Certificate for Seeds, *your choice*, all for 2 stamps (4 cents.) Every flower lover delighted. Tell all your friends. G. W. PARK, FANNETTSBURG, PA.
Be Prompt. This offer will appear but twice
Mention the American Bee Journal.

HANDSOME SECTIONS.

WE have a limited quantity of One-Pound Sections, 4¼x4¼, a trifle less than two inches wide, with narrow tops, in packages of 1,000 each. They are manufactured from extra white lumber planed on both sides, making them the finest and most attractive honey-section in the world. Price, $4.00 per package.

THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL
Mention the American Bee Journal.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. March 2, 1889. No. 9.

EDITORIAL BUZZINGS.

Ill-grounded passions quickly wear away; What's built upon esteem can ne'er decay.

The Paris Exposition will cost over ten millions of dollars.

Father Langstroth is quite weak and still failing. After a few lines dated Feb. 20, 1889, he writes to us: "I am almost past using my pen." His many friends will be sorry to learn this—though there is some consolation in the fact that he is partially relieved from his old "head trouble."

The California Honey Crop, which was 9,000,000 pounds in 1884, fell to 1,200,000 pounds in 1887, and last year (1888) it was increased to 3,500,000. Fears are already expressed that the crop of 1889 will be a short one.

The Illinois State Fair is to be held at Peoria this year. We hope that Mrs. L. Harrison will see that there is a good display of bees, honey, and apiarian implements. There has never been a creditable exhibit of such since she had the matter in charge some years ago.

Mr. Byron Iiams, of Worcester, Mo., whose report we published on page 100, with the remark that it was "fabulous," now writes us that he "can prove his report to be true, if necessary." That report claimed a *net* profit of $360.50 from 3 colonies in the spring of 1888—an average profit of $120 per colony. If that is so, *he* surely ought to be satisfied! After this, who will dare to say that bee-keeping will not pay—at least in one instance?

The Bee-Keepers' Magazine has not been issued since last December, and we now learn that its subscription list has been sold to the *Bee-Keepers' Advance.* Brother J. B. Mason has been *advancing* on the outposts, and has taken five of them by storm. We are glad to see this, for one good periodical is far more useful and creditable than five *weaklings.*

The *Magazine* has been issued for 16 years, and for most of the time was under the able management of Mr. A. J. King; for the past 3 or 4 years it has been edited and published by Mr. John Aspinwall, at Barrytown, N. Y.

Brother Mason has our congratulations, and we hope the *Advance* will prosper abundantly. We compliment him upon the adoption of the following, which we copy from his last editorial:

We have no quarrels with any one, and do not propose to allow our journal to become a medium for others to quarrel in; and while we solicit articles of interest in our specialties from all, we shall publish nothing of a personal nature which reflects in the least upon any one.

The tendency with some is to be *quarrelsome,* and they appear to be never satisfied if they cannot get something into an article which is an offensive personality. We deplore this, and would much prefer never to receive an article from such writers, rather than to publish unkind personal remarks concerning those from whom they differ, either in theory and practice.

Farmers' Institutes.—Hon. John C. Spooner has offered a Bill in the United States Senate providing for a national system of Farmers' Institutes, to be held throughout the Union under the authority of the new Secretary of Agriculture.

This measure, if it shall become a law, will afford an effective and practical outlet for the work of the various State Experimental Stations; will give a new impetus to improved agricultural and apicultural methods, and also establish such close and friendly relations between the farming masses and the federal government as have hitherto been wholly unknown.

The provisions of the Bill are such that any State may join with the national authority in arranging and managing local institutes, and 5,000 copies of the reports or bulletins will go to each Experimental Station for free distribution, in addition to 1,000 to each member of Congress.

Those who favor this measure should write to their Senators and Representatives, and make their influence felt in its behalf. Bee-keepers are interested in this matter, since bee-culture is very properly been discussed at farmers' institutes.

Rural Life, a farm, stock, bee and poultry periodical, which was started a year ago, and "noticed" on page 99 of last year, is consolidated with *Popular Gardening.* This makes *two* less bee-papers, and two "obituaries" of such, this week.

The Wisconsin Bee-Keepers' Association met at Madison, on Feb. 7, 1889, Mr. C. Hatch, President, in the chair. About 60 persons were present. Last season the members produced nearly 40,000 pounds of surplus honey, and 1,910 colonies were placed into winter quarters.

Among the subjects presented for discussion were: "The President's Address," C. A. Hatch, Ithaca; "A Successful Bee-House," E. Pike, Boscobel; "Spring Management," Rev. T. H. Dahl, Stoughton; "Bee-Keeping as a Specialty," F. Minnick, Bessemer; "Points in Bee-Culture," Dr. J. W. Vance, Madison.

Upon motion, beginners were "advised to use the ten-frame Langstroth hive, or the Simplicity;" and "city and town authorities were requested, when selecting trees for shade or ornamental planting, to give the basswood a prominent place among their selections."

The officers elected for the ensuing year were: C. A. Hatch, Ithaca, President; Rev. H. A. Wioters, Madison, Vice-President; F. Jonier, Wyoming, 2nd Vice-President; Dr. J. W. Vance, Madison, Secretary; J. C. Plumb, Milton, Treasurer.

The Nebraska Bee-Keepers held a State convention last January, and we have received the report from the Secretary too late for this issue of the BEE JOURNAL, but it will appear next week. The bee-keepers of Nebraska are justly proud of what they have accomplished during the past few years. They now have a building on the State fair grounds, built for the exclusive exhibit of bees and honey and apiarian supplies. Their premium list for next year will be increased and revised so as to give more and larger premiums, and the State Board of Agriculture have asked for a full report of the proceedings of their last convention, to be published in their annual report. We congratulate our Nebraska brethren upon their work and success.

Foul Brood, so-called, has considerable attention in this issue of the AMERICAN BEE JOURNAL, because of several inquiries concerning the treatment of that dreaded disease.

The Approaching inauguration of President Harrison, and the opening of the new *regime* at Washington, give universal interest to Dr. Ferdinand C. Iglehart's article on "The Nation's New Leadership," which opens the March number of *Frank Leslie's Popular Monthly.* The lives and characters of President-elect Harrison and Vice-President-elect Morton, and of their wives, are sketched in vigorous, picturesque and intimate style; while the accompanying portraits and other illustrations give a permanent, as well as a timely, interest to this contribution. The table of contents of this number of the magazine is as rich and varied as ever, literature and art vying with each other in its attractive pages.

GLEANS OF NEWS.

Seasonable Hints.—There is much apiarian work that *can* and *should* be done in the winter, or before spring opens. Mrs. L. Harrison, in the *Prairie Farmer*, describes her methods of doing some of it, in these words:

MELTING WAX.—I like to do this kind of work when it is too cool for bees to be upon the wing, for, if they are flying, and smell the wax, they will try to gain admittance through the key-hole, or even down the chimney. I re-melt wax over a pot of boiling water, in a pan. This pan should be small enough to fit the inside of the kettle, and be held in place by the rim. When it is melted, I strain it through a coffee-stainer, into pint-basins to cool.

I melt out both ends of a tin fruit-can, to hold the strainer while I pour the wax. The strainer should be hot, and, while not in use, should be set in the oven. I let the wax settle a few moments, but, before it begins to harden, pour it into another pan, leaving the dregs. The pans are all of the same size, so that the cakes will be of uniform size.

Scrape off all bits of comb and propolis, and, however black and dirty it may be, empty it into an all-metal sieve; and, when it is full, set it over a pan half-full of water, and put it into the stove oven.

If the water in the pan boils very hard, it may run over, but if only a moderate fire is kept, there will be no danger. When the wax is all melted and run down into the water, the residue in the sieve can be scraped into the fire. It makes such good kindling that sometimes I scrape it into paper, roll it up and keep it for kindling to build a fire another time.

When the water in the pan is cold, a nice cake of wax will be on top. I put these cakes away until a favorable time, when I re-melt and cool in uniform shape for the market.

ODDS AND ENDS OF HONEY.—Where much honey is handled, there will be more or less that is not in good marketable condition. Pieces that are not capped will be granulated, while others may be only partly filled. The best way I have ever found to utilize such honey is to melt it in a pan over a kettle of boiling water. As soon as it is fairly melted, it should be set off to cool, as heating honey too much injures it. When cold, the wax will be in a liquid cake on top of the honey. This honey, although not as good as extracted honey, can be used for many purposes, and for feeding bees in the spring.

Good pieces of honey can be sold as chunk-honey; the dry, unfilled cells can be scraped off, and that which is filled and capped on one side, and has unfilled cells on the other, can be carefully scraped off, leaving only the base, with its clearly-defined septa of cells. I often fill cheap tin pails with such pieces of honey, and sell pail and contents. Such pieces of honey require very careful handling, and should be lifted with the hands, so that no cells will be broken, as would necessarily be, if a knife were used.

HONEY-HOUSE STOVE.—By the way, I would like to state that there is no stove equal to a cook-stove for a farmer's shop or honey-house. It is so handy to wash and oil harness by, melt glue, or for the boys and their friends to pop corn, crack nuts, make candy, etc., teaching them to love home, and keeping them away from "the corners." When a stove was needed for our honey-house, we took the cooking-stove from the kitchen, where it had done faithful service many years, and had a new one in its place. And all the family have been thankful that we did.

CLEANING HIVES.—This is a favorable time to take all the hives not in use into the shop (which all prosperous farmers have) and give them a thorough overhauling. I know of no better tool to clean out the inside of a hive with than a wide chisel.

When the hives are cleaned out, they should be treated to a coat of paint. I prefer the lower hive to be painted white with lead and oil, and the upper story with red, mineral paint. The roof should receive special attention, especially if it is grooved, being made of two pieces of boards. If the boys and girls want to help, do not push them away, but "let 'em pitch in." There is so much work to be done in the world that it is a pity that all should not help that want to.

Alfalfa Honey.—In *Gleanings* we find the following concerning a sample of alfalfa honey, which will be read with interest:

Dr. C. C. Miller, while in Pueblo, Colo., purchased a sample of alfalfa honey of that region. On his arrival home at Marengo, Ills., he sent us this honey, together with a sample of cucumber honey. The flavor of the alfalfa is fully equal to clover, which it resembles closely. It is seldom that we take more than a good taste of honey sent us as a sample; but after A. I. R. had tasted, E. R. R. and J. T. C. followed suit. With an expression of "That's good," we kept on scooping it up with our knife-blades until—well, there is just a little left for you to try. The fact that this plant yields from three to four crops of hay in a season, that it will grow in most Northern localities, together with the fact it yields a superb honey, are no small recommendations in its favor. The flavor of the cucumber could hardly be called first-class, but on the whole it is better than the majority of the second-rate honeys. The taste reminds one a little of cucumber itself, and this becomes more evident a few moments after tasting.

Bee and Honey Shows at Fairs are very important matters. At the Indiana State Convention there was quite a discussion on the matter, and Mr. G. K. Hubbard, in the *Indiana Farmer*, makes these additional remarks about the desirability of having special buildings for apiarian exhibits:

If the object in having a good apiarian exhibit at the fair is to enlighten the masses, and to induce the careless bee-keepers to keep their bees more intelligently, and to use better implements, we think it would be a mistake to put the display in a building by itself. The money that the building would cost the fair association, would pay greatly increased premiums in our department for several years.

In our judgment it would be better for the association to spend $40 or $50 in the arrangement of a neat booth in the main Agricultural Hall, and put in $50 or $75 worth of good show-cases to contain the smaller articles. In this way, we feel confident, a very tastily arranged exhibit could be made, and that too, in a manner to attract the attention of the masses, and delight the bee-keepers.

Much may be said in favor of a separate building, and we would like to hear from others on the subject. Dr. A. B. Mason and Mr. J. N. Heater, as well as others, are invited to tell our readers what they think about it.

Lizzie Cotton's advertisement may now be seen in many of the religious and literary periodicals, and as many will be deceived by her highly-colored representations, it is timely to give another warning to beginners in apiculture. All the bee-periodicals have repeatedly warned the public not to be deceived, but still she looks for pastures green, by using the columns of the papers who know nothing about her, or her fabulous stories about what can be done with her so-called "new system of bee-keeping." Audrews & Lockhart, of Patten's Mills, N. Y., write as follows concerning her transactions:

Enclosed is an advertisement of Mrs. Lizzie Cotton, which was clipped from the *Household Companion* of New York city. We would say to all beginners in bee-keeping—Let Mrs. Lizzie Cotton's "New System of Bee-Keeping" alone! It is deceptive. We will give here one instance: A party we know bought one of her hives (which was a poor concern) with a swarm of bees in it, for which he paid $20.00. After waiting a long time he got the hive of bees, which was a very small colony, and he is sorry to say that he found out that they had foul brood of the worst kind; and what few colonies he had before, caught the foul brood, and he lost all the bees he had! That was a very unlucky twenty-dollar colony of bees for him. Such is her way of serving people. We are sorry to say that she still seems to flourish and entice people to try her new system of bee-keeping, by her gaudy way of advertising! If she means to do right, why does she not advertise in the bee-periodicals?

This is the first instance that we have heard of her bees being affected with so-called "foul brood." We can hardly think that she would knowingly send out such diseased bees—at least we hope not. The reason she does not advertise in the bee-periodicals is, that none of them would receive her advertisement! She works among novices only.

Bees are Wintering Well, so far, in nearly all parts of America. Mr. N. N. Betsinger, Marcellus, N. Y., writes thus concerning their condition in that State:

Bees in this State are wintering nicely thus far, but all must look out for shortage of honey before blossoms appear again. I have 72 colonies of mine buried in a clamp. This is the second winter I have used the clamp, and I am much pleased with the system, and I shall extend the clamp building next summer, so as to take all my bees. The points of advantage are cheapness, convenience, ease of manipulation, and safe wintering.

Catalogues for 1889 are on our desk from—

George S. Josselyn, Fredonia, N. Y.—20 pages—American Grape Vines.

Christian Weckesser, Marshallville, O.—8 pages—Bees, Seeds, Plants, Potatoes, etc.

Daniel Wyss, New Philadelphia, O.—8 pages—Nursery Stock.

Bush & Son and Meissner, Bushberg, Mo.—4 pages—American Grapevines.

Thos. A. Cox & Co., San Francisco, Calif.—60 pages—Flower, Fruit and Garden Seeds.

Geo. H. Kirkpatrick, New Paris, O.—16 pages—Bees, Honey, and Bee-Keepers' Supplies.

QUERIES & REPLIES.

Getting Worker-Comb Built by a New Colony.

Written for the American Bee Journal

Query 615.—With starters in the brood-frames, five cells deep, what should be the most favorable conditions to assure the building of worker-comb by a newly-hived swarm?—Maine.

A good flow of honey.—H. D. CUTTING.

A good, fertile, prolific queen.—DADANT & SON.

They build every time, with me. I put sections with some comb above.—A. J. COOK.

It should have a young and prolific queen.—M. MAHIN.

Warm, pleasant weather, with plenty of honey in the fields.—MRS. L. HARRISON.

The best is to put in full sheets of comb foundation. It is poor economy to use starters.—P. L. VIALLON.

Most favorable conditions: A big swarm, with a young, vigorous, laying queen, and a plentiful yet moderate flow of honey.—J. P. H. BROWN.

I doubt if I can get my bees to do it. Hutchinson's plan works pretty well with him.—C. C. MILLER.

Plenty of storing-room in full drawn combs above, and a queen excluder between, might accomplish this end.—J. M. HAMBAUGH.

Contract to five frames, giving plenty of section room above, and using a queen-excluding honey-board under the sections.—G. M. DOOLITTLE.

A contracted brood-chamber, a vigorous queen of the current year's rearing, and honey receptacles above containing comb or partly-drawn foundation, from which the queen is excluded.—R. L. TAYLOR.

1. The super on above, with a queen-excluding honey-board between. 2. A queen vigorous enough to keep the cells full of eggs as fast as constructed.—EUGENE SECOR.

"The most favorable conditions should be" just such as will insure the desired result. A warm atmosphere, a good honey-flow, and a young queen are very favorable.—A. B. MASON.

This requires too much of an answer for this department, it seems to me, and I have never seen it answered so fully and completely as in Hutchinson's book, on "The Production of Comb Honey."—JAMES HEDDON.

The conditions most favorable are, that the honey-flow should be light, and that comb will not be built faster than the needs of the queen require. In other words, if built for the queen, it will be worker size; if built for storage, it will be storage or drone comb.—J. M. SHUCK.

A good honey-flow is the prime requisite. The only plan is to watch for the drone-comb, and cut it out when started. If the bees become too persistent, use full sheets of worker foundation.—WILL M. BARNUM.

Just what would be "the most favorable conditions" in any case. As to conditions, it makes no difference whether there are starters or full frames of foundation. A large swarm with a good honey-yield will give good results. The queen should not be over 2 years old, in the case asked about.—J. E. POND.

Some drone-comb will surely be built when starters only are used. The only thing that will discourage drone-comb building is, to put the frames 1⅜ inches, or less, from centre to centre. Some drone-comb will be built, and if you do not wish to go to the expense of foundation, you can cut out the drone-comb, and fit in pieces of worker-comb instead.—C. H. DIBBERN.

1. A swarm with a strong, young queen, capable of laying all the eggs that she can find room for. 2. Do not give too many frames at a time. But as nearly all swarms are the result of a desire on the part of the worker bees to supersede old or otherwise weak queens, the only safe plan to get good solid worker-combs is, to fill the frames full of foundatton.—G. W. DEMAREE.

Good honey weather, and a profuse supply of nectar are some "conditions" not to be despised. A good queen is always an essential "condition."—THE EDITOR.

Perforated-Zinc vs. Tin or Wood for Separators.

Written for the American Bee Journal

Query 616.—Would perforated-zinc be any better than tin or wood for separators?—T.

No.—WILL M. BARNUM.

I do not know.—J. M. HAMBAUGH.

I prefer the tin.—G. M. DOOLITTLE.

I have never tried it.—A. B. MASON.

I never have tried it.—EUGENE SECOR.

I do not know. Some say yes.—A. J. COOK.

It will do, but it is more costly.—DADANT & SON.

No, I do not think that it would be any advantage whatever, and it costs more.—C. H. DIBBERN.

I prefer the tin separators to all other materials.—P. L. VIALLON.

Yes. Tin rusts, and the perforations in wood are not reliable.—R. L. TAYLOR.

I think not, but I have never tried it.—MRS. L. HARRISON.

I have never tried it for the purpose, but I have grave doubts of its being any better.—J. P. H. BROWN.

No. Wood is the cheapest, and fortunately the very best.—J. M. SHUCK.

It is probably better than tin. For loose separators, hardly enough better than wood, to pay extra cost.—C. C. MILLER.

No; perforated separators have no disadvantages except in theory.—JAMES HEDDON.

There would not be but little difference if the tin and wood were perforated.—H. D. CUTTING.

I do not think that it would. In fact I do not think that perforated separators of any kind are of any value as compared with unperforated. Besides, zinc would be too thick and clumsy.—J. E. POND.

I do not know. I never used separators, and I do not expect to. I can crate my honey without. I put the sections in the crate in the order they were when in the hive, and I have no trouble.—M. MAHIN.

I have never tried it for separators; but I think I can say in advance that it will not do at all. But if it would do even better than tin or wood, its present cost would be in the way of its extensive use. I prefer tin for separators, though I have seen very nice wood separators.—G. W. DEMAREE.

Zinc may be better than tin for separators, but its cost is more; perforations are of no particular advantage, however.—THE EDITOR.

Convention Notices.

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at the Court House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.
H. M. SEELEY, *Sec.*

☞ The DesMoines County, Iowa, Bee-Keepers' Association will hold its annual convention in the Court House at Burlington, on April 23, 1889, at 10 a. m. All bee-keepers are invited. JOHN NAU, *Sec.*

☞ The 11th annual session of the Texas State Bee-Keepers' Association will be held in the apiary of W. R. Graham, of Greenville, Hunt Co., Tex., on May 1 and 2, 1889. All bee-keepers are invited. The last meeting was held here last May, and was the best ever held. So we look forward to a good time next May. A cordial welcome and hospitality will be tendered to all who come. O. A. WILSON, *Sec.*

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

CORRESPONDENCE.

FOUL BROOD.

Experience with Curing the Foul Brood.

Written for the American Bee Journal
BY A. A. BALDWIN.

In the fall of 1886 four apiarists (including myself) bought a carload of California honey for feeding our bees, as it was cheaper than sugar, and it would also help the honey market that much. We took the precaution to write to the party that produced it, asking him if there were any foul brood among his bees, and getting an answer that there was no disease among them, we felt safe to use it without boiling.

During the fall and the next spring, we fed it to about 1,000 colonies of bees, and it was sometime in April that we found that we had given them the foul brood. We had had experience in New York with the disease, and knew what to expect. We talked the matter over together, and felt as might be expected—out of patience with ourselves for not being more careful, and on the whole a good deal "blue" about it. We concluded to wait until the close of the honey harvest before making an effort to get rid of it.

The disease progressed much more rapidly in my apiary than in either of the others, showing that the conditions were more favorable for it, or else my strain of bees were not as strong to resist it. Perhaps the water supply had something to do with it, although some of the colonies fed, did not show the disease until late in the season. I had fed 128 colonies out of the 150 before I discovered the disease, leaving 22 colonies all right.

Some two weeks later, I found whole frames full of dead brood, and some 75 colonies that were not hatching enough bees to keep up the strength of the colonies, and if I saved them I would have to be about it. I took the back numbers of the AMERICAN BEE JOURNAL, and looked them over until I found Mr. McLain's remedy, and he was so positive in his statements in regard to the cures that he had wrought with it, that I went to work with no little confidence to treat mine.

I doctored 80 colonies, following his directions to the letter, and watched, as you can imagine, with a good deal of interest, the development of the new brood; but, alas, vain hope! I found that I could as well expect to move into a house from which the occupants had been carried to the grave by small-pox, and remain healthy, as that a healthy bee could be reared in a cell from which a putrid foul-broody mass had been removed. I doubt very much that a remedy will ever be found for the disease, and use the same combs.

I found that combs that had stood empty through the winter, in which I could not detect the disease by the scent or looks, gave the disease to clean, new swarms.

The season (1887) was a very poor one for honey; the healthy colonies gathered barely enough to keep up their strength; but those diseased were fast running down in numbers and in stores, and becoming discouraged, many of them swarming out, leaving their hives in disgust. I had to be on the watch to keep the healthy ones from cleaning out the deserted hives.

Early in July I went to work to make new colonies, by brushing the bees from one, two, or three of the diseased colonies, according to their strength, together into a clean hive, and after two days, giving them six frames full of foundation, and feeding them until they had sufficient stores for winter. These where made strong enough, became strong, healthy colonies. I found later by experimenting, that I could give them foundation at once, without continuing the disease, and thus save time and trouble.

I rendered the combs into wax, and made that into foundation, and used it for brood-combs again. I wintered a few colonies that showed the disease a little, and found some others that developed the disease as they bred up in the spring, some 15 in all, I believe. Some of the worst cases I put on foundation about May 1, feeding them liberally. One of them gave me 90 pounds of comb honey for my trouble. Those colonies that had it light, built up and swarmed, when I brushed out the remaining bees with the swarm, and gave the frames of brood to other sick colonies to hatch out, till I had reduced them to a few colonies; these I made queenless, and as soon as they had a young, laying queen from a healthy cell given them, I brushed them out and treated them as a new swarm.

I steamed most of the hives before using them again. The balance I fumigated with burning sulphur. Both treatments proved effectual. Eighteen of the 22 colonies not fed the honey, remained healthy through it all, in the same yard, and I have no doubt but that the four that took it, got a lick of the honey while feeding the others, or while treating them; for if the disease-germs floated in the atmosphere, or were carried by the bees to the flowers to be taken by other bees to their hives, and thus spread the disease, as some think, none would have escaped it.

During the first stages of the disease it cannot be detected by the odor; but later, as they begin to open the cells to investigate the trouble, thus exposing to the current of air passing through the hive, the putrid contents, it can be readily detected by taking a sniff at the entrance of the hive.

We have conquered the disease, and now have a full stock of as fine bees as we ever had. We may find a few cases during the coming season to deal with, but we are not troubled about it.

We have thus saved by our labor, many of the bees, and a thousand hives worth at least two dollars each; also 1,500 pounds of wax, which, I think, is much better than burning them all, as some recommend.

Our experience agrees with Mr. Quinby's given twenty or more years ago, viz:

1. That the disease is carried in the honey, and in no other way.
2. Thoroughly boiling the honey makes it safe for feed.
3. Boiling, steaming or fumigating with sulphur, renders the hives safe to use again. (I would also add that the wax from diseased combs is safe to use for brood foundation again.) Never feed honey without first boiling it unless you *positively know* it to be healthy.

I hope that this experience may help some brother apiarist who may be in like trouble.

Independence, Mo.

GOOD YIELD.

Keeping Bees in Texas—Peaches Blooming.

Written for the American Bee Journal
BY A. C. ATEN.

During the season of 1888 my bees produced 11,000 pounds of honey, mostly extracted, being an average of 112 pounds per colony, spring count; besides an increase of 40 colonies. They have wintered well, or rather we have had no winter, as there were only three nights that ice formed in the most favorable places.

Roses have been in bloom all winter, and lilies were in bloom in the garden in January. Peaches are beginning to bloom, and bees are busy. There is scarcely ever a spring, however, in this part of Texas, but that we are in danger of losing some colonies by starvation, unless we feed them.

There comes a time after fruit-bloom, that there is scarcely any honey to gather for two or three weeks, and

bees having exhausted their stores in brood-rearing, starve to death unless cared for. The careful apiarist, however, will see that his bees at this critical time are fed, knowing that in a very short time everything will be changed, and his bees will be booming. Just at this starvation-time, bees will eat pollen until they get the diarrhea as badly as they ever get it in the North in winter, and that, too, when they can fly every day; as soon as they are fed, however, they get well. It is almost marvelous how soon they will get well on a proper diet.

While the honey crop fails in some parts of Texas quite often, where my apiaries are situated—13 and 16 miles north of the city of Austin—there has been no failure for many years. It is the rich, black-land prairie, with narrow strips of timber along the streams. The honey is from hoarhound, horsemint, wild marigold, asters, different kinds of fruit, cotton, corn, wild morning-glory, milk-weeds, and various other plant of lesser note. All of our honey is pretty good.

We have had a great deal of rain this winter—more than almost ever known—roads almost impassable, and all business is at a stand-still; but little farming is done yet. The rains appear to be over at present, and the ground dry enough to work.

Round Rock, Tex., Feb. 14, 1889.

SWARMING.

How to Make a Box for Hiving Swarms.

Written for the American Bee Journal

BY J. E. WALKER.

As the time for swarms is drawing near, I will deseribe my swarming-box. I make it of light material, 12 or 14 inches square, and 10 inches deep, with several small auger-holes in the sides. A strong wire bail is put on, and by bending the wire once around in the centre, a ring is formed in the bail.

I have two or three of these boxes in my apiary, and as many straight, light poles of different lengths, made of poplar. I taek a strip of leather to each side of these poles, and over one end, and put on a eommon harness-snap. This I snap into the ring on the bail of the box. I have other poles with a limb left on each, to correspond in length with the one I wish to use.

I push the box up under the swarm or cluster, and punch the limbs, when most of the bees fall into the box. I put the end of the pole on the ground, and lean it away from the limbs of the tree, and soon all the bees that have missed falling into the box, will settle on it. If any come baek to the place where they settled, I keep shaking them off, and they all will soon setttle in and on the box.

Then I lower the box slowly to the ground, take the snap from the bail, and carry the box and bees slowly to the hive. By going slowly, all the bees that are on the wing, will follow the box.

I have the hive ready where it is to remain, leveled with a spirit level. In front of the hive is a loose bottom-board, placed level, and close up to the entranee. I then turn the box upside down slowly, and pour the bees out, when they make a stampede for the hive-entrance. I think that this plan is perfect.

Clarksville, Mo.

ODOR AND COLOR.

Their Influenee upon the Honey Gathering Insects.

Written for the American Bee Journal

BY MAHALA B. CHADDOCK.

On page 838 of the AMERICAN BEE JOURNAL for 1888, Prof. L. H. Pammel, speaks of insects wasting their time when visiting flowers where their services are no longer needed to pollenize the blossoms. The insects know nothing about the needs of the flowers. To prove this, I have only to quote from Prof. Pammel's artiele on pages 634 and 635 of the same volume, viz:

"Muller records the most interesting ease of Salvia Sclarea, in which the tube of the corolla is so long that the honey-bee is not able to get the nectar in a normal way. It made several attempts, but did not perforate the corollas. When, finally, it found several in which the corollas had just loosened, it began immediately to sip the little drops of nectar which still adhered to the base of the corolla."

Now, here was a flower that was too far along to need the services of the bee, but the bee kept on trying to get at the nectar until it found some flowers so ripe that the corollas were loosened and falling off; from these it sucked the little drops of nectar. There is *always* a difference in the eolor of flowers at the different stages of their development, and the *signs* that the insect would need to tell them that their services are no longer needed, ought *surely* to be hung out by the time the corolla is loose enough to fall off!

The fact is, when a flower begins to fade, the coloring-matter seems to collect in the thicker parts of the petals, and makes darker spots or stripes there; but it is only Nature doing her own work, in her own way, and is not a "signal" nor a "sign" of anything. The fact that bees work on flowers when the corolla is so loose that it falls off, proves that bees do not look for "signals" in flowers.

On page 838 (1888) Prof. Pammel says: "Most naturalists agree that color is an important factor, in attracting insects to flowers, and that they have done much to develop the colors in flowers."

Well, in a note in the *Popular Science Monthly*, on page 718, we read: "Dr. Schweinferth has obtained specimens which were originally deposited in the forms of offerings from Egyptian tombs, 4,000 years old, which are as satisfactory for the purpose of scienee as any collected at the present day, and which, consequently, supply means for the closest examination and comparison with their living representatives. The colors of the flowers are still present—even the most evanescent. The chlorophyl remains in the leaves, and the sugar in the pulp of the raisins. Dr. Schweinferth has determined 59 species, some of which are represented by fruits, others by flowers and leaves, and the remainder by branches.

"Mr. Caruthers also referred to the deposits discovered at Cromer, and the remains which exist of pre-glacial flora, and eame to the conelusion that the various physical conditions that necessarily affected those species in their diffusion over such large areas of the earth's surface in the course of say, 250,000 years, should have led to the production of many varieties, but the uniform testimony of this pre-glacial flora, so far as the materials admit of a comparison, is that no appreciable change has taken place."

So, then, we find according to various authors, that color was given to flowers to attract insects to fertilize them, and that insects have done much to develop the colors in flowers. But here, these *eminent* naturalists examine these flowers from Egyptian tombs, and find them true to the flowers that we know; and these deposits at Cromer carry us back 250,000 years, and as far as the materials admit of comparison, there has been no *appreciable change!*

The insect world has done it best for the floral kingdom, for vast periods of time, and still they are about the same! The brightly-colored flowers that Prof. Pammel mentions, contain either nectar or pollen, or both, and the insects are attracted by *the same*; but the hazel, walnut, oak, grasses and sedges are *odorless*, and that is why they are not visited by insects. For if

bees will go through a key-hole into a dark cellar to find honey, they can find honey in any flower that grows, without any coloring-matter about it.

Prof. Pammel wishes me to "explain why the sunflower should have developed the large, conspicuous ray-flowers surrounding the head." That is very easy. They are Nature's works, and grown on natural principles. The sunflower is a vigorous grower, and the numerous seeds demand a suitable support around the edge to keep them from spreading. The coloring is *only accidental*, as it is in all plants.

As to "the vermillion red leaves surrounding the blossom of the poinsetta," they are *entirely unnecessary*, as that little "pocket-book" full of the thickest and sweetest nectar on the *side* of the blossom bud is surely enough to attract all the insects necessary to the fertilization of the flowers. Then there are the stamens full of pollen.

If nectar is placed in flowers to cause them to be visited by insects, why is it not always placed in the centre of the flower? Now, this poinsetta has its little "pocket-book" full of honey on the side, clear away from the pollen, and bees could empty these little pockets, time after time, and never get any pollen on their legs.

Will not some of the bee-keepers in Texas tell us if the poinsetta grows there? It is a native of Mexico, and Texas is pretty close to Mexico, and there are many bee-keepers in Texas. Then tell us if the poinsetta is not a glorious honey-plant; what the honey tastes like; how many tons an acre of poinsetta plants would yield, and if the plant bears many seeds.

Then Prof. Pammel asks if the colors and forms of flowers have been developed merely to gratify our senses. The great end and aim of all vegetable life (of all life, in fact) is to perpetuate itself. The flowers bloom merely that the seeds may ripen—the coloring is only accidental. All nature, the earth, the air, the sky, is full of color, and it is all accidental. It was not made to please anybody, nor to attract anything.

The vast coal-beds of Illinois contain enough coloring matter to color the wearing apparel for the whole world. "One pound of coal affords magenta enough to color 500 yards of flannel; aurine sufficient for 120 yards of flannel 27 inches wide; vermillion scarlet for 2,560 yards of flannel, or alizarin for 255 yards of Turkey-red cloth.

"We are acquainted with about 16 distinct yellow colors, about twelve oranges, more than thirty reds, about 15 blues, seven greens, and nine violets; besides various compounds, giving an almost infinite number of shades and tones of color." And in the face of all this coloring-material which is burned up, we begin to talk and fancify about *why* flowers are colored.

Look at the coloring of the deep-sea fishes. I quote from Sir John Lubbock. I see that all of our Professors are very fond of Sir John Lubbock. He says: "The conditions of life in ocean depths are very peculiar. The light of the sun cannot penetrate beyond about two hundred fathoms; deeper than this, complete darkness prevails. These deep-sea fishes are either silvery, pink, or in many cases black, sometimes relieved with scarlet, and when the liguminous organs flash out, must present a remarkable appearance. The deep-sea fishes are very peculiar. The abysses of the ocean are quite still, and black darkness reigns. (The pressure of the water is very great)." (I had the rest of this copied out of a cyclopedia, but I have lost the paper containing it.)

Now here are these deep-sea fish, down in the dark depths of the ocean, where the sun's rays never go, and they are colored pink, and silver, and black, relieved with scarlet. What were they colored for? and who was to see them? Does not this prove that coloring in Nature is only *accidental*?

Prof. Cook, in his article about "Tiger Beetles," in *Gleanings*, page 49, says: "As the weasel in his winter robes of white, or the Arctic fox is hid by the snow on which he treads." I think Prof. Cook must be a poor hunter, or he would know that dogs trace the weasel, and the Arctic fox by the *odor*, not by the color; and they will follow *scent* for miles without seeing the game; of what use then is the mimicry of color, so far as the weasel and the Arctic fox are concerned? What is color anyway? I say it is pigment!

Sir John Lubbock (Oh, how I love to quote Sir John Lubbock) says:

"Light is the effect produced on us when waves of light strike the eye. When four hundred millions of millions of vibrations of ether strike the retina in a second, they produce red; and as the number increases, they pass into orange, then yellow, green, blue and violet."

The above is a very wise explanation of color, but for ordinary mortals colors are chemical substances, formed in coal, in flowers, in clays, and numerous other substances. They are made by boiling, or stewing, or pressing different substances together, and they are always wholly and entirely accidental! The setting sun, that paints the clouds and hills in crimson and gold, sinks, in a few minutes, out of sight, and the clouds are grey and the hills are green again.

DISEASED BEES.

Eradicating Foul Brood from the Apiary, etc.

Written for the American Bee Journal

BY SAMUEL BARNHART.

In the AMERICAN BEE JOURNAL for March, 1888, I wrote my experience with foul brood, and how I eradicated it from my apiary. Thinking that some at least might wish to know what success I had, I will repeat the treatment.

I put the bees into empty boxes for two days, scalding and cleansing the boxes effectively.

I then put them back on full sheets of foundation, destroying all combs in which there had been any brood, and saving all the nice, white outside combs, some of which were only partly drawn out. I treated all but 2 colonies at the time they appeared to be only slightly affected, but they soon became so bad that it became necessary to treat them she same way.

From the 2 colonies I took eight frames of brood, with a few bees, and put them into an empty box, and they are there to-day, as free from foul brood as bees can be. They were without a queen for at least five weeks, and being weak, consumed all there honey, of which they had a very little. At first I fed them syrup, and afterward gave them two frames of bees and brood from another colony, and in the fall it was as strong as any colony I had. Last spring that was the first colony I divided, and very soon I had two good colonies, both of which stored considerable surplus honey.

After this colony, without any aid whatever, had cleansed their own combs, and was rid of foul brood, I thought, why can I not use the combs I had saved after fumigating frequently, and effectually with sulphur, and spraying with carbolic acid? I then gave the nicest of these combs containing no honey, to several colonies, without any bad results whatever.

Whether there is anything in it or not, I will not pretend to say, but I put a small camphor poke on top of the frames of each colony, and fed a little sulphuric acid through the summer, with an occasional spraying with a weak solution of carbolic acid, the bees at the entrances of the hives. After getting through safely so far, I was foolish enough to risk still further, by giving to a very late, small second swarm, six frames (the last I had), some of which contained some of the old honey; I sprayed them all with carbolic acid, but did not uncap the honey, neither did I use any camphor nor give them any attention whatever. Sometime afterward, when I exam-

ined them, in taking out the second frame, oh, the infernal foul brood! How I regretted using combs with the honey in; being taught when a boy not to "cry over spilt milk," I concluded to do the best I could under the circumstances. I immediately took away the queen, and I suppose for sometime I troubled them with more sulphuric and carbolic acid than was agreeable to them. I afterward gave them a queen, but being late, and the weather cold, they reared no brood. I do not fear but what they will come out all right.

I put them into the cellar the last of November, without one drop of honey in their combs—they are living on sugar candy, and doing first-rate. However they may come out I cannot believe that either the queen or bees ever become affected, but if kept two days in empty boxes, then put into perfectly clean or new boxes, there will be no return of foul brood, unless they get access to foul-broody honey.

The afterpart of the summer here was anything but agreeable or profitable to bee-keepers. There was no buckwheat honey; fall flowers would have produced abundantly, but the weather was so wet and cold, so that the bees could not harvest it. The winter has been open, wet and warm—favorable for out-door wintering. My bees (over 30 colonies in all) are resting very contentedly in the cellar, without giving me any concern whatever. I have them right under the kitchen, where we keep potatoes. Some of the family go in with a light every day, and neither that nor the noise from above annoys them in the least.

Bees Going 40 Miles.

I was telling a dutchman the other day that there was a man somewhere in America, who had bees that went 40 miles to gather honey. "Oh," said he, "dos ist nix. Ouse in Schermany der vos von verry schmart man, vot dinks he likes to go in der pee-pisness. So dot man he pys some bees—great big uns—shust annoder dime so big as yours. So vot you dink him do? Vy, dot man he pe so schmart, so he dinks he makes von air-line railroat, vay up in de air; ond ob, oh, sich berry fine wire midout von ent, so de pees dey haf to go von way unt dey haf to gome von odder way. Den dot man him git oh, so hundrets ob sich wee tiny leedle cars, mit a little loop, so dot dem pees shust fly riet mit dare headts in dos loop, unt avay gos dem cars. Now dos ist so. I dells you, dot man he pe so schmart, him quick git dem pees draned shust so goot all-do-gedder as dem fire gompanies in de citties haf der horses.

Greensburg, Pa.

Only a Clover Blossom.

Written for the American Bee Journal
BY GEORGE W. YORK.

It was only a clover blossom,
So modest, so pure and sweet,
That grew by the roadside so humbly,
The bee in its flight to greet.

The bee knew the blossom had in it
A drop of liquid so rare,
That 'twere worth an extra exertion,
To search for it far and near.

'Twas a drop of such precious nectar—
Quite fit for the gods to sip—
That the bee gathered up so gently,
Like a kiss that leaves the lip.

'Twas only one drop of sweetness,
Yet joy to the heart it brought,
Of the bee that hovered, so weary—
For long had the drop been sought.

'Twas only a smile that was given,
But it bore a wealth of cheer
To the poor and youthful toiler,
Whose life was so dark and drear.

'Twas only a moment of life yet,
For one who was called to Heaven,
But that was a time quite abundant,
To forgive, and be forgiven.

Thus the *drop* of nectar was ample,
To gladden the weary bee;
The *smile* to make lighter the burden—
The *moment*, a life to free.

Chicago, Ills., Feb. 7, 1889.

WINTERING.

Report for Two Winters—Experiments.

Written for the American Bee Journal
BY DANIEL WHITMER.

On Nov. 20, 1887, I placed in my bee-cellar, under the dining-room, 207 colonies of bees in good condition (with the exception of about six, two or three of which were queenless), and left 36 colonies on the summer stands. I wintered them very well, with the loss of 14 colonies by winter and spring dwindling.

In the spring, by selling some, and uniting others, I started with 150 colonies of Italian bees, but on the account of a very dry season, I secured only 4,500 pounds of honey, mainly amber, and increased my apiary to 204 colonies, 14 of which are hybrids.

On Nov. 19 and 20, 1888, I placed 190 colonies in the cellar very heavy with bees and honey, with but few exceptions, and left 14 colonies on the summer stands. All seem to be wintering well as yet. The temperature in the cellar has been a little higher this winter than desirable, in consequence of the mild weather. It is now where I want it—40° to 42°. They seem to be doing quite well, and I have lost none that I know of yet.

Plenty of Ventilation.

I am experimenting with one colony. Late in the summer, the last prime swarm that issued I put into a 7-frame Langstroth-size hive, made for the purpose without end-boards, the bees being exposed to the weather. They were allowed to build their own comb, and they did well, making no drone-comb, and they filled the hive with brood-comb as straight as a shingle, and gathered enough to winter on.

I placed them in the cellar in that condition, to know how they would winter, and I must say that I never saw bees do better. They are as quiet as it is possible to be, and hardly a dozen dead bees are on the bottom-board—bees and hive being perfectly clean and sweet. This proves that plenty of ventilation in the cellar is a necessity, at least in my locality.

Not a colony in the cellar or on the summer stands shows any signs of diarrhea as yet, and my bees always winter on natural stores. I never expect to fuss with feeding sugar, when the bees can get honey. I have enough trouble in these days of adulteration, to convince some people that honey from the producer is pure and good.

As to the market here, it is not any higher this season than it was last, notwithstanding the scarcity of honey. The market was kept down early in the fall by some injudicious honey-producers selling their honey at less than it would have brought in the market, hence it still remains at from 12½ to 15 cents.

South Bend, Ind., Feb. 15, 1889.

NECTAR.

The Process of Evaporation by the Bees.

Written for the American Rural Home
BY G. M. DOOLITTLE.

Some bee-keepers hold that bees gather honey from the flowers and deposit it in the cells immediately, and if the hive is patented on purpose for evaporating nectar, or the watery parts of it evaporates itself, the bees will, when suitably thickened, seal it up. So they will seal it up, when properly thickened, but the hive has very little if anything to do with it.

When bees gather nectar, maple sap, or any other thin sweet, more than can be contained in the honey-sacs of the bees which stay in the hive, they deposit it in the cells until evening, when they hang in festoons in the hive to evaporate it.

Some claim that the bees which bring the nectar in from the field, deposit it in the cells, but my experiments have led me to believe that all honey brought in by the outside laborers is given to the young bees, they taking it into their sacs directly from the bee which brings it in; and if more is gathered than the sacs of the inside bees can contain, it is deposited by them in the cells till night, and then evaporated down, although this evaporation is going on to some extent during the daytime. At night all hands join, from the outside laborer with jagged wings, down to bees but a day or so old, when the nectar or thin sweet is taken into the honey-sac, thrown out on the proboscis, drawn back in again, and so on, until by the heat of the hive, these small particles of honey are brought to the right consistency, when it is deposited in the cells for sealing up.

In order to do this, the bees hang loosely so that when the proboscis is thrown out it shall not hit another bee, the combs or the hive.

Now by their great roaring, humming, or whatever we call it, the heat is increased in the hive till the nectar is thickened very fast, by this stirring up process, which is being gone through as spoken above.

Take a short straw in your mouth, and blow a drop of water gently through it out to the end, and then draw it in again, and you have an idea of the process, all except the stirring up. The bees do that part better than you can, because they have tools made on purpose for that business.

All bee-keepers of any experience can tell whether the bees have been getting honey of any amount during the day, by the roaring they make at night, as bees only make this roaring while reducing their honey. Let two or three days of rain succeed a plentiful honey harvest, and all roaring ceases with the night of the third day.

Many a night have I watched this reducing of thin nectar to honey, and by the light of a lamp you can see the tiny drops of nectar sparkle, as it is thrown out on the proboscis and drawn in again. When honey is coming in slowly, you will not be likely to see this process, as it goes on so slowly at such times.

All have doubtless observed that when bees are getting honey plentifully it shakes readily from the combs at night, while in the morning before the bees go into the fields, not a particle can be shaken from the combs; this going to show that most of the evaporating of the nectar is done at night.

Borodino, N. Y.

HOUSE-APIARIES.

Experience with Keeping Bees in Houses.

Written for the American Bee Journal

BY W. J. DAVIS, 1st.

From the answers given to Query 612, on page 85, I am inclined to think that some practical experience along the line of the second part of the question would have brought out quite different replies from those given, especially those who condemn without a trial.

I have been experimenting for a few years with house-apiaries, where I have kept bees away from home, and I must say, from three years' experience, that I am *more* than pleased with them.

House No. 1 is 8 miles from my home apiary; easily reached by either of two lines of railroad, which makes it more convenient in doubling the opportunities of going and returning. The house is 12x16 feet, and nicely accommodates 33 colonies, with plenty of chance of tiering-up the section-cases; besides room on the top row for 16 swarms, with room for only one section-case each.

The house is sided with 1-inch grooved siding, and painted two coats. Separate alighting-boards are attached on the outside for each colony, each board being 4 inches wide, and every alternate one painted white, and the next one red, both differing in color from the siding.

The bees do not have access to the inside of the building, but must pass out at the entrance. The advantages of such an arrangement are numerous, viz:

1. Economy. Such a house, and the hives to stock it, will cost less than the same number of hives made for out-of-door exposure. The hives are simple boxes unpainted, made the proper size to hold the number and kind of brood-frames desired, and covered with a light honey-board—I mean *board*, not cloth.

2. There is no cumbersome packing, or carrying to the cellar for winter.

3. If properly constructed, a far more even temperature can be maintained, both in the brood-chamber and section-cases, than with hives standing in the lawn.

4. It makes a superior honey-house, after the surplus has been removed from the hives.

5. The door is shut and locked at night, making everything secure from a class of beings that are not desirable in any community, yet probably all localities have them.

6. It secures a clean and convenient storage for such cases and sections as must be carried over until the next year.

House No. 2 is but 8x10 feet, and was a wintering-house worked over into a house-apiary. It accommodates 20 colonies.

The past three years have been poor honey seasons here, but those in the house-apiaries have done much the best. How they would do in a good honey season, I am not able to say; but I would not have the slightest objection to trying it. I think that the house-apiary would still be ahead. Bee-keepers are not the "bloated bondholders," in this part of the country.

Youngsville, Pa.

BEE-KEEPING

Considered as a Branch of Agriculture.

Read at the Ontario Agricultural Union

BY R. F. HOLTERMANN.

To be in a position to treat the subject before me, I must refer briefly to a few peculiarities in the method of fertilization in the organs of flower vegetation. In doing this, I am indebted to various scientific works.

The stamens and pistils are the essential organs of fertilization in the flower. On the stamens grows the pollen. The pistils are the bodies in which the seeds are formed. The pollen coming in contact with the pistils at a certain time is the important step towards reproductions. Many plants have not the anther and pistils upon the same flower; these must be indebted largely to insect life for fertilization. Again, many which do bear both anther and pistils must also owe their fertilization to insect life, self-fertilization being prevented by either the anther or pistils maturing first. Again, there are others not coming under the head of the two previous, which in order to yield the best seeds, and the largest number, must be fertilized by crossing.

It has been proved by experiment that in such cases pollen placed on the stigma of the flower on which it grew, becomes powerless when pollen is added from the complementary blossom; the prepotency is so arranged as to secure cross fertilization.

Fertilization of Fruit-Blossoms by the Bees.

Now let us take the apple. Each blossom carries five stigmas, and to each stigma belongs a division of the ovary constituting the core fruit. We have here an example of the stigma maturing before the anthers. In the construction of this, as I believe in almost every other flower, the recepta-

cle for the honey is so arranged that the insect cannot reach it without coming in contact with the anther and the pistils. The wisdom of this is manifest. In the case of the apple blossoms, the insect becomes dusted with pollen-grains, and when visiting another flower, deposits it upon the sticky surface of a part of the pistils, causing fertilization.

But one fertilization is not sufficient. To secure a perfect apple, five independent fertilizations have to take place. If none are effected, the calyx which forms the flesh, dries and soon drops. If, as is often the case, only four fertilizations take place, there is an imperfect development of the calyx, the four parts swelling, while the fifth develops imperfectly. The fruit of course is imperfect, and is very liable to drop off during the first storm. Opposite the hollow cheek on the apple you find the pips have not been matured.

Gooseberries, currants, raspberries are largely dependent upon insects for fertilization, and, in the last two, undeveloped parts are often found, due to imperfect fertilization, as in the apple, clover, especially white and Alsike, and not unfrequently the second growth of red (the corolla of which is shorter than in the first growth), is largely visited by bees, and who can estimate the advantages to be gained by the visits of these insects ?

Of course it may be argued that other insects would act as a medium for the fertilization of flowers, and the honey-bee may not be required. Let us see. When we consider the frequent rains during the spring, which, for the time, hinder the visits of insects, and the uncertainty of the temperature, we must at once admit that any agent which gives us a more rapid and perfect fertilization of the blossoms which later develop into useful crops on the farm, is desirable, and that is just what the honey-bee does.

Having now shown the utility of the honey-bee to secure surer and larger crops, and even better specimens of fruit, we at once see the advantage of having bees at work on every farm ?

Who Should Keep Bees ?

The next question will be, Who should keep the bees ? Probably the natural way will be for every man to gather his own crop. Some of our specialists have said, "We can make it pay better because we can with our experience, gather a larger and better crop," and give as an instance, the creamery as compared with farm butter-making. Now whilst the specialist is of greater use in advancing scientific bee-keeping, and is a blessing to the farmers who did not keep bees before he settled in their vicinity, the comparison between the specialist in bee-keeping and the creamery is faulty. Look at all the processes the product from the cow has to undergo before it becomes butter or cheese for the table. Not so with honey ; the product when left by the bee is fit for table use, or in the case of extracted honey, becomes so by a very simple process, as easily learned, or more so, than milking a cow.

To point to the failures the farmer has made in bee-keeping, nothing is said, for in comparison the specialist has made as many ; and there are probably as many failures in every other business. It may be claimed that the farmer has already "too many irons in the fire." That may be true, but the question then would be, Would he better remove some which year by year yield a less return for capital and labor invested, and which would not diminish the profits from other sources ?

Some of our staunchest advocates of specialists are by practical experience feeling that they should combine bee-keeping with some other pursuit ; that it is better not to have "all their eggs in one basket."

Many farmers may not, of course, be in a position to keep bees to advantage—this must be a matter of individual judgment.

Who are Canadian Bee-Men ?

It will certainly be of value in considering this question, to know who are the bee-keepers of Ontario and of Canada. After a careful study of the question, I cannot to-day point out one who is keeping bees alone, and not combining it with something else, and out of these 90 per cent. are farmers, while a small percentage of the balance combine it with gardening.

Again, I doubt if any man could make bee-keeping in Ontario a paying business, unless he or his neighbors cultivated fields ; for the bulk of our honey is secured from land which has been cleared from the primeval forest. Clover and thistle both yield first-class honey—basswood, or more properly linden, is the only surplus honey we take from the forest. This fact, together with what has been shown regarding the fertilization of fruit-blossoms and clover, make it apparent that bee-keeping is a branch of agriculture. But is it so recognized ? The farmer recognizes it as such, and the various agricultural papers have been compelled to so class it. Our "cousins" across the line have given recognition of it as such by having bee-departments at various agricultural colleges, and even by having an experimental station devoted entirely to the advancement of bee-keeping. But how are we situated here ? The absence of a bee-department at this institution, one so long established, offers no pleasing picture to our enterprise. In many instances where the different departments of the farm are referred to, bee-keeping comes under the head of "etc."

Market Quotations of Honey.

Our influential papers give market quotations for every other farm product but honey. What wonder, then, that the exhibit of honey at the Colonial and Indian Exhibition has been a matter of surprise to those visiting it ? This lack of market quotations is an injury to bee-keepers, and is largely the cause of such varying prices ; such quotations would also assist in developing our market. But far more all this lack of recognition is hindering the development of the resources of our country, and in reality impoverishing it. The British market will never open to us until we can give them an unfailing supply of honey. In England, when an article such as Canadian honey drops out of the market for a season, it is uphill work regaining the former position.

In closing I do not ignore the fact that we have amongst us some who see with disfavor every new bee-keeper, and every development of the industry. When a merchant is settled in a prosperous community, he would doubtless often desire to see a law passed to prevent another from starting in the same community ; but in store-keeping, in bee-keeping as well as many other pursuits, it must be "the survival of the fittest," and the best way to look upon this question is not what is best for a few individuals, but for the community, for the country ; and no argument can refute the statement that One wiser, more far-seeing, and One who never wrongs any one, has decreed that bee-keeping is a branch of agriculture.

Brantford, Ont.

BACTERIA.

The Causes of Foul Brood Among Bees.

Written for the American Bee Journal

BY GERD WENDELKEN.

I am extremely interested in the subject of foul brood, and have tried to get all the information about it I could.

Science says that all, or nearly all, diseases are caused by the development of minute vegetable organism, or so-called bacteria. These tiny plants, they say, produce spores, or seeds, which fly in the air, and produce, under certain conditions, foul brood.

Different denominations are applied to the causes of foul brood, such as

fungus, bacteria, bacillus alvei, and leptothrix. It is, I believe, the popular idea that all these are classed to the vegetable kingdom; but in statements about examining foul brood by the use of the microscope, it is said that millions of them are found in diseased colonies, and are also seen rolling and pushing by and over each other, and swimming much as a fish does, by the use of its fins.

Leptothrix belongs to vegetables, but Mr. Cheshire, according to his statement, saw them swimming rapidly either backwards or forwards. I once asked a Professor, "Are bacteria plants, or animals?" The answer was, "Vegetable."

Now, when bacteria move, as stated, then it would seem that plants had changed into living beings. I do not understand this. I think that plants produce plants, and animals produce animals, and nothing more.

Now I desire to understand how bacteria, of minute vegetable origin, can change to living beings, and swim backwards and forwards. I want someone to give me some light on this subject.

Last season my bees had stored much honey-dew; I feared disease, but to-day they had a good flight, and I found them all right.

Marietta, Ohio.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Mar. 30.—Agency, at Agency, Mo.
T. S. Smith, Sec., Agency, Mo.

Apr. 23.—DesMoines County, at Burlington, Iowa.
John Nau, Sec., Middletown, Iowa.

May 1, 2.—Texas State, at Greenville, Tex.
G. A. Wilson, Sec., McKinney, Tex.

May 4.—Susquehanna County, at Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 21.—Northern Illinois, at Pecatonica, Ill.
D. A. Fuller, Sec., Cherry Valley, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Good Outlook for 1889.—J. A. Delamarter, East Meredith, N.Y., says:

I think that the Union is doing a fine work, and I feel it my duty to pay my fee, not because I need help, for I do not. I have 18 colonies, which were put into winter quarters in good condition. I got but very little honey last year, but I think that the outlook is better for the coming summer—I hope so, at least. The bees had flights until about three weeks ago, and it has been very cold since then.

Early Swarm—Maple Bloom.—J. A. Marsh, Scotia, Mo., on Feb. 15, 1889, writes:

I began the spring of 1888 with one colony of bees—a present from my father-in-law—which I increased to 3 colonies, and took 125 pounds of honey. The bees are in good condition now. The thermometer registered 78°, Fahr., to-day. The bees had a "picnic" on the maple bloom, and about 2 p.m. a swarm issued, or strayed from elsewhere; I hived it—about 1¼ pints of bees. Will it pay to try to save them? The BEE JOURNAL is a regular and highly-prized visitor.

[It would be better to return the small swarm to the parent colony, if that can be ascertained; but if not, to unite them with a weak or queenless colony will be the best disposal of them at this time of the year.—ED.]

Good Prospects for Honey.—T. M. Edwards, Kerrville, Tenn., on Feb. 12, 1889, says:

It is hard to get the old-fogy notions removed from the minds of many bee-keepers in this part of the country; yet a few begin to see the light. My bees are doing finely, being strong and healthy. They have a good time out in the air two or three times every week. I have 150 colonies, and prospects are good for the next crop of honey, which never fails to be pretty good. My crop, last year, was 43 pounds of comb honey per colony. There is no disease among the bees in this country.

Results of the Past Season.—W. H. Miller, Berrien Springs, Mich., on Feb. 14, 1889, says:

Last spring I commenced with 50 colonies in just fair condition, increased them by natural swarming to 86, and took about 700 pounds of comb honey, nearly all being white, in one-pound sections. I have 86 colonies packed in sawdust out-doors. All were in good condition when prepared for winter, and seem to be wintering well, as they keep very quiet.

Wintering Carniolan Bees.—Andrews & Lockhart, Pattens Mills, N. Y., on Feb. 20, 1889, writes as follows:

We never had bees winter so well as our Carniolans are doing this winter. There is not a handful of dead bees on any of the bottom-boards of the hives. The cellar has been kept at a temperature of 45° to 48° all winter, so far. The bees are in that quiet state in which every bee-keeper likes to see them. Bees are hanging below the frames in nearly every hive. Our Carniolans winter remarkably well, and they are more quiet in the cellar than any other strain of bees we ever had.

Our advertisement in the AMERICAN BEE JOURNAL has brought more calls than we have had from all the other bee-periodicals put together. As it is brimful of apicultural news *every week*, we presume others feel as we do—that we would not do without it for five times its cost. It has paid us ten fold the cost of the advertisements. Its large circulation, the world over, gives great advantage to its advertisers.

Report for 1888.—Wm. H. Ford, Marshalltown, Iowa, on Feb. 16, says:

I commenced the season of 1888 with 12 colonies of bees (part hybrids and part Italians), and increased them to 19 colonies. One swarm came to me on Aug. 26, and stored enough to winter on, thus making 20 colonies to begin the winter with. I put all of them into the cellar on Nov. 17, and they are wintering well so far. Last summer I took off about 300 pounds of honey, part extracted and part comb honey. The "old reliable" AMERICAN BEE JOURNAL makes its visits regularly every week, and is welcomed, for I think that no man who keeps bees can do without it for five times the cost.

Odors and Bees—Cleaning the Sections.—Jno. Handel, Savanna, Ill., writes as follows:

Is it not possible that bees are always attracted to the nectar in flowers by the smell, and that they simply use color as a landmark afterwards? I have often noticed that when flowers fail to secrete nectar, they also lack in odor. I think that not only bees, but the bee-keeper himself, with a little practice, can tell when there is a honey-flow, by the odor. Now, then, who can answer these questions: 1. Do the bees drive the odor out of the nectar-distilling cups of the flowers, by fanning it with their wings? Or, does the evaporation of the nectar release the odor, and the bees are attracted by it? Or, is it possible that the flowers attract bees, etc., by their colors, and are tickled by them, until they (the flowers) eject the sweet juice, after the fashion of the ant and plant-louse?

The best tool for scraping propolis from sections and separators that I have ever tried is, one-half of a pair of shears. Sharpen it occasionally.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

Simmins' Non-Swarming System, and the AMERICAN BEE JOURNAL for one year, for $1.25. The subscription to the BEE JOURNAL may begin anew at any time.

We Supply Chapman Honey-Plant **SEED** at the following prices: One ounce, 40 cents; 4 ounces, $1; ½ pound, $1.75; 1 pound, $3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of of any other papers. Send for such to the publishers of the papers you want.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

Honey and Beeswax Market.

SAN FRANCISCO.

HONEY.—White comb, 10@11½c.; dark, 6½@8c. White extracted, 6½c.; light amber, 5¼@6c.; dark amber, 4½@5½c.
BEESWAX.—18@22c.
Jan. 25. O. B. SMITH & CO., 423 Front St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 17@18c.; best 2-lbs., 16@17c. Extracted, 8@9c. The trade is dull.
Jan. 19. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 16@17c. Sales slow. Extracted, 9@10c.
BEESWAX.—22@23c.
Feb. 11. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 16@17c.; 2-lbs., 14@15c. Good dark 1-lbs., 13@14c.; 2-lbs., 12@13c. Buckwheat 1-lbs., 13@14c.; 2-lbs., 11@11½c.—Extracted, 6½@8½c., depending upon quality and style of package. Market dull and stock sells slowly.
BEESWAX.—22c.
Jan. 24. S. T. FISH & CO., 189 S. Water St.

ST. LOUIS.

HONEY.—Choice white clover comb, 13@15c.; fair 11@12c.; dark, 8@10c. Extracted, dark, in barrels, 5@5½c.; choice, 5½@6c.; in cans, 6@7½c. Market is quiet but steady.
BEESWAX.—20c. for prime.
Jan. 17. D. G. TUTT & CO., Commercial St.

CHICAGO.

HONEY.—Best 1-lbs., 17@18c. Extracted, 7@9c. for best quality, according to body, flavor and style of package. Trade is limited to local consumption. Off grades of comb honey are slow at lower figures than given above. But few will buy dark comb.
BEESWAX.—22c. R. A. BURNETT,
Jan. 17. 181 South Water St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 15@16c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c.; fair 1-lbs., 12@14c. Extracted, white, in kegs and ½-barrels, 8½@9c.; amber in same, 7½@8c.; in pails and tin, white, 9½@10c.; in barrels and ½-barrels, dark, 5½@6c. Market dull. The very best sells slowly, and inferior qualities are neglected very much. Damaged, broken and leaky comb honey not wanted.
BEESWAX.—22@23c.
Jan. 10. A. V. BISHOP, 142 W. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@16c. Demand is only moderate. No overstocking of the market.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Feb. 21. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—White 1-lbs., 16c.; fall, 14c.; California 1-lbs. 16c.; white 2-lbs., 14c.; extra 2-lbs., 13c. Extracted, white California, 8c.; amber, 7c. Market dull.
BEESWAX.—20@22c.
Jan. 22. CLEMONS, CLOON & CO., cor 4th & Walnut

KANSAS CITY.

HONEY.—Choice 1-pounds. 15@16c.; dark 1-lbs. 12c.; 2-lbs., 14c.; dark, 11c. White extracted in 60-lb. cans, 8c.; amber, 7c.; in barrels and kegs, 5@8c. Demand good, prices steady, and stock large.
BEESWAX.—None in market.
Jan. 4. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—White, in 1-lb. sections, 15@16c. Extracted, 9@10c.
BEESWAX.—20c.
Jan. 1. J. M. CLARK & CO., 1409 Fifteenth St.

NEW YORK.

HONEY.—We quote: Fancy white 1-lbs., 14@15c.; 2-lbs., 12c Fair white 1-lbs., 14@15c.; 2-lbs., 10 to 11c. Buckwheat 1-lbs, 10@11c.; 2-lbs., 9@10c. Extracted, white, 7½@8c.; dark buckwheat, 6@6½c. which is in good demand. Market dull, except for extracted buckwheat; for all other kinds it is quiet, owing to unseasonable weather, we believe.
HILDRETH BROS. & SEGELKEN,
Jan. 10. 28 & 30 W. Broadway, near Duane St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½ cents; amber, 6c. Comb, white 1-lbs, 13@14c.; 2-lbs., 13c.; amber, 10@11c. Demand is of a jobbing nature, and arrivals are small.
BEESWAX.—19@20c.
SCHACHT, LEMCKE & STEINER,
Jan. 8. 16 & 18 Drumm St.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.

Advertisements.

Send for Early Queens
TO J. N. COLWICK:

1 Tested Italian, before May 15,			$2.25; after,	$1.75.
3 "	"	"	6.00; "	4.50.
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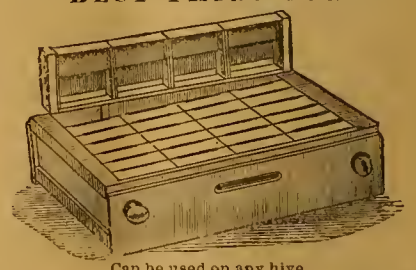
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CIRCULATES
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PUBLISHED BY
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CHICAGO, ILL.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. March 9, 1889. No. 10.

EDITORIAL BUZZINGS.

Mr. W. T. Richardson, one of the proprietors of the Monte Blanco apiaries at Santa Barbara, Calif., called at this office last week. The apiaries consist of 1,500 colonies of bees, and was begun in 1880. They are sending honey by the carloads to Boston, New York, and Eastern cities.

Dr. Mason's address at the Tri-County Institute at Adrian, Mich., was very interesting. It took forty minutes, and was listened to with the closest attention. This was a three-day meeting, and the Doctor worked faithfully for the pursuit of bee-keeping. Bee-keepers should improve all such opportunities.

Silo and Silage is the name of a nice 25-cent pamphlet by Prof. A. J. Cook. It is written in the Professor's familiar chatty manner, and is well worth reading and studying, so as to make it of practical use. His preface reads thus :

I write this primer : first, because I have been asked to do so ; secondly, because, from my experience, I deem the silo a tremendous advantage to any farmer, and I wish to influence the farmers to do that which will aid them, in the struggle for success, more than any other one thing. My silo has been a surprising success, and in this little *brochure* I shall tell in a plain, simple way how I grow the corn, build my silo, fill and cover it, and feed the silage. I shall not pretend that this is surely the best method in every respect, but I shall urge that it will all pay, and prove a success ; for I have tried it at an immense profit. There ought to be one thousand silos built in Michigan, and ten thousand in the United States during the next year. I hope and trust that this little effort of mine may aid in bringing this about.

The Professor has proved by experience on the farm his every statement. We can supply it at the publisher's price.

California Honey Crop.—In their fourth annual report of the honey and beeswax crop of California for 1888, just issued, Messrs. Schacht, Lemcke & Steiner, of San Francisco, remark as follows :

A fair crop of honey has been gathered and marketed this season. The quality has also been up to the average, and the price has ruled high enough to be satisfactory to apiarists and dealers. This is as we anticipated in our report last year, and as far as present prospects can be read, the outlook for the next crop is equally good, although fears for a small crop are entertained.

As we have mentioned more than once in our annual reviews, it is very difficult to give a correct estimate of the California honey crop. Our reason for this is found in the fact, that no reliable, or other statistics of the article, are kept in the different counties and localities of the State, as there should be. Consequently we are compelled to rely wholly for this information on reports from our agents and correspondents, which is reliable as far as it goes, and on this authority our estimate of this season's crop is made. From the fifty or sixty thousand colonies in California, for the year 1888, there was marketed of extracted honey, 3,000,000 pounds, and of comb honey, 500,000 pounds, or a total of 3½ million pounds for the season.

This result compared with former seasons is favorable, as the following figures evidence : 1887, 1,200,000 lbs. ; 1886, 5,000,000 lbs. ; 1885, 1,250,000 lbs. ; 1884, 9,000,000 lbs.

A great portion of this season's crop was shipped by steamer or rail, direct from the apiaries to San Francisco, as the following statistics show : extracted, 1,200,000 lbs. ; of comb honey, 300,000 lbs., or a total of 1½ million pounds. This also compares favorably with the receipts of former years, viz : 1887, 1,300,000 lbs. ; 1886, 2,500,000 lbs. ; 1885, 2,000,000 lbs. ; 1884, 3,600,000 lbs. ; 1883, 1,400,000 lbs. ; 1882, 1,000,000 lbs.

Since the first of this year the receipts have been 1,000 cases of extracted and 450 cases of comb, and for the remaining four or five months they will probably be light, as the interior supply is getting limited.

A better demand and higher price of the article, caused much larger shipments of it to be made to Europe this season than were made last year. They amounted by sailing vessel to Europe and other foreign countries 700,000 pounds, and by sail via New York, 175,000 pounds. The principal part of these shipments went direct to England ; the balance to Germany. France did not import any from here during the year, but will probably soon become an importer.

Overland shipments including those for Europe, via New York, amounted to nearly one million pounds, while in 1887 they were 950,000 pounds ; 1886, 2,000,000 pounds ; and in 1885, 1,270,000 pounds.

These heavy and constantly increasing shipments, show that Europe is a large consumer of our honey ; and that it is important to all concerned in the honey-trade, to do everything that can be reasonably done, to increase it, by taking great care in producing a fine article in all respects, and putting it up in good and strong packages. The quality and color should also be looked after by the apiarist, dealer and shipper.

The average price of extracted honey during the last season has been from 5½ to 6½ cents ; for comb honey, 10 to 12½ cents per pound for one-pound sections, while the two-pound sections have been sold for less. Present quotations are 5½ to 6 cents per pound for extracted honey.

It is too early now to say what the crop of the coming year will be. Spring rains are necessary, and if we get them, there will be a good yield. We feel confident though, in saying that the outlook so far is good, that the coming season will probably not be behind the past one, although nothing certain can now be said.

Congress last week passed a resolution favoring unrestricted trade with Canada. Commissioners were appointed to prepare a plan for the assimilation of the import duties and internal revenue taxes of the two countries, and an equitable division of receipts in a commercial union. In its report on foreign affairs, it says :

Our commercial relations with Canada have recently awakened a deeper interest, and received a more thorough discussion than ever before. The tendency of public opinion is plainly toward the enlargement of trade between the two countries.

In Canada the movement has advanced from what a few years ago was an effort for partial reciprocity to a wide expression in favor of unrestricted intercourse and commercial union. The Chambers of Commerce and Boards of Trade of the leading cities of Canada, and more than fifty farmers' institutes and conventions have adopted resolutions declaring in favor of commercial union or unrestricted trade between the two countries.

The answer made by their opponents, and those most closely attached to English trade and English rule has been that the United States has given no indication that it would receive or even consider any proposal, however friendly in spirit, or however favorable to us in its terms it might be. Your committee believes that the power herein conferred upon the President can do no harm, that it will be wisely used, and will lead to beneficent results, promoting the independence, prosperity, and peace of the two great people.

The Bee Hive, in its March number just received, has quoted a part of an item from the AMERICAN BEE JOURNAL of Feb. 16, on page 99, concerning "a club agent down East," who had taken subscriptions for papers and then "lit out with the money." The *Bee Hive* says it would have been much better to have "given the absconder's name or town, than to cast reflections on the honesty of *all* Eastern club-agents." *We intended no wrong.* The dishonesty was recorded because, as we there stated, several of our subscribers had sent him money, and lost it. His name is J. K. Boak, but his address is now unknown to many who would like to know it. Perhaps it would have been better to have given the name before.

Frosted Grain is good for seed. Prof. Green, of the Minnesota State Agricultural College has completed his experiments to ascertain the value of frosted grain for seed. His report made on Feb. 25, shows that from 40 to 90 per cent. of the total amount planted will sprout and grow. He says that the experiments may be relied upon, and hereafter farmers may plant frosted grain with the assurance that it will grow, rather than run in debt for other seed. Oliver Dalrymple, the bonanza farmer of Dakota, and the largest wheat-grower in the Northwest, is inclined to believe that the experimet can safely be relied upon, and will test further on his 40,000-acre farm.

The Third Annual Fair of the Dakota Board of Agriculture will be held at Grand Forks, Dak., Sept. 17 to 21, 1889.

Basswood or Linden Honey.—On page 104 we stated that we hoped the controversy would there end, but as Mr. McKnight thinks he should be heard in reply, we admit one more article from each disputant, and then positively close the discussion in our columns. Mr. McKnight writes thus:

MR. EDITOR:—You have virtually put your foot down on any attempt at further controversy between Dr. Mason and myself, on the alleged superiority of Canadian linden honey over American linden honey. Under ordinary circumstances I should say you are right in doing so; but the Doctor, in his last article, goes entirely outside the question, and treats me so badly, that I ask your indulgence for a little space to reply, promising not to trouble you on the subject again.

I am free to admit that I often say things that would be better unsaid, nevertheless when speaking to the public, through the press or otherwise, I endeavor

> To guard my words with jealous cares,
> Least Bogles catch me unawares.

I have not forgotten to do so when writing on this subject, and have therefore nothing to retract. The "Circular" that furnishes so much delight to the Doctor, supplies him with no proof that I have at any time "misstated facts." Copious as are his extracts from it, he has failed to find one to support his contention. Somebody has addled the Doctor's brain by furnishing him with this (more than two years old) "Bee-King Circular," the existence of which I had almost forgotten, as I have not seen one of them since I left London; nevertheless I acknowledge the fidelity of his quotations from it.

Since he got the Circular, he is wild with delight. He shakes it in my face, exclaiming: "Ha! my man, I have got you now! Did you not challenge me a year ago 'to name a solitary Canadian (apart from Mr. Pettit) who had made the statement that Canadian linden honey is better than the American article?' Here, sir, I have the proof that 'you're another,' and if you are, 'what must we think of the man who makes such a claim and then denies it.'"

Verily, the Doctor is bringing things to an unpleasant crisis; but let him "bide awee," and reflect, when he will find that his "Circular" evidence will not hold in court. I did say that Mr. Pettit made the claim, and I reply to the Doctor's query by assuring him that I do "throw all the responsibility of claiming superiority for Canadian linden honey on Mr. Pettit," and on Mr. Pettit alone—ignoring all responsibility of doing so myself, and I assert that the Doctor has no proof in the circular to the contrary. I made no such claim in England. I made no such claim elsewhere. I have, on the other hand, stood up at one of our own conventions, and defended the high quality of your linden honey when Mr. Pettit claimed superiority for ours.

I could not then, and I cannot now see, why linden trees growing on the south bank of the St. Clair river, should yield an inferior article in honey, than the same kind of trees growing on the north bank yield.

I could not then, and I cannot now see, why the honey from linden trees growing in Michigan, Ohio, Massachusetts, Pennsylvania and New York, should be inferior to honey from linden trees growing in Ontario.

"But how," the Doctor asks, "does this conduct compare with the language you use in your published interview with the editor of the *Pall Mall Gazette?* Did you not say to him, 'We think that all who visit our exhibit at the Colonies will admit that for *color, flavor and specific gravity, we throw all other honeys in the shade?*'" Yes, we did, and I am willing to father the statement and abide its consequences.

The Doctor will please bear in mind that in this we spoke of our exhibit as it stood. We spoke of our collection of honey, and of its quality as a sample of our general product, and not of the merits of linden alone. We took the position that we can beat the world (which, in the Doctor's opinion, means the United States) in the high grade of quality of our honey products; and we are prepared to maintain that position. We frankly admit that the linden and white clover honey of the northern States is as good as ours from the same sources, but there is a much larger occupied pasture field, and a much wider range in the honey-producing flora in the United States than there is in Canada. We get nothing but the best; you get much that is inferior, hence the Canadian honey is higher in its average grade, than the average grade of the American *world*.

The Doctor will hardly take the position that the honey of the Gulf States, and California honey is as good as that produced in Michigan, New York and Ohio. He will not deny that these and similarly situated States take as good honey as the world can produce. The high grade of these States is lowered by admixture with an inferior article from other parts of the Union, thereby lowering the average grade of the country. Our surplus comes almost entirely from the same sources, whence you derive your *best*, viz: white clover, linden and thistle. Our *average* being as good as your *best* samples, and your best being as good as the "world" can produce, it follows that our honey in its average quality is the best in the "world;" hence the honesty, the propriety, and the truth of our claim as set out in the words quoted from the "Bee-King Circular."

The only other world we had in view when this claim was made, was the British. We had seen the products of most of her Colonies on the ground: and they could not "hold a candle" to ours. We had seen and tasted English honey—so highly prized by her people. Its flavor is good, but its color is murky. We had not yet seen the famed Scottish heather honey, but through the kindness of our lamented brother, the late Mr. Raitt, we were afterwards supplied with a sample. In flavor, no other honey is like it, and no other honey can be compared with it. In color it is as dark as molasses.

When the Doctor next tackles me, let him stick to the text. It is upon the relative-merits of *linden* honey the question hinges, and I nail him to that tree.

As to the great yield of our linden, I can only say, that the phenomena of observing honey-drops chasing one another down the cheeks of basswood bloom, is not observable around Owen Sound. It may be seen in the neighborhood of Beeton, for aught I know.

That superior "honey-belt" bothers the Doctor a good deal. I assure him that such there is; and that Ontario lies within it. It is not bounded by parallels of latitude; but isothermal lines, within which the mean temperature is much the same, and within which there grows and flourishes the best honey-producing flowers.

I am pleased to know that the circular has done the Doctor some good. It has added to his geographical knowledge, by furnishing him with the fact that Canada is larger than the United States; though I greatly fear it has disturbed him not a little to learn this. He "smoles" a smile over our alleged claim that Ontario lies within the United States; surely the Doctor knows this is a mistake. If he does not, let me assure him that the delegates, one and all, would rather be situated ontside the "honey belt" than in the Union.

Thank you, Mr. Editor, for your indulgence, while I bow and retire from the field.

R. MCKNIGHT.

Owen Sound, Ont., Feb. 17, 1889.

In order to *close* this controversy in this issue, we here give the reply of Dr. Mason as follows:

MR. EDITOR:—I am glad indeed that you have concluded to let our friend McKnight "kick" once more before he surrenders, for I felt pretty sure he would dodge the issue, and give me a "wild goose chase." I am in the same fix that he is, in regard to saying things that were better unsaid, and I thought after my article on page 103 had been sent to you, that perhaps I was a little too severe on him, but I had either to furnish the proof for my statements, or be willing to admit that Mr. McKnight was right when he said, "Dr. Mason misstates the facts," etc., and I think that it would have been better for him if he had kept in mind the fact that tangible and solid "corporosity" was of more account than "Bogles."

I am not aware of having accused Mr. McKnight of "misstating the facts," but he accused *me* of doing it, and "challenged" me "to name a solitary Canadian (apart from Mr. Pettit)" who has "sought to destroy confidence in the good qualities of American basswood honey, and claim superiority for their own;" and the main object I had in view in writing the article on page 103 of the BEE JOURNAL was, to furnish the evidence that he "challenged" me to produce; and if the "Bee-King Circular" produces such an "addling" effect upon a Yankee, what must have been its effect upon the tens of thousands of English, and others who read it?

But, as what is in the circular seems, according to Mr. McKnight, to have such an "addling" effect on him, perhaps evidence from the "Old Reliable," that never "addles" any one's brain, will convince him that he has "put his foot in it."

On page 694 of the AMERICAN BEE JOURNAL for 1886, in speaking of the Ontario honey exhibit in London, it says: "It has come over in charge of a deputation....who are....on a visit to this country with a view to open the English market to the best honey in the world, as they constantly describe the article which they have on view."

To me, that alone is *conclusive* evidence that somebody besides Mr. Pettit *did* claim that Canadian honey was better than American, and one of the somebodys *was Mr. McKnight*.

Instead of being "wild with delight," as he says, since getting the circular, my heart is saddened at the spectacle he makes of himself in saying, "I made no such claim in England." I could furnish other evidence of the fact that "the deputation" did make the above claim, and will do so further on. When a person's brain gets in such condition that he can deliberately say that he does not care what a person "may say or think of him," as Mr. McKnight does about Mr. Pettit, on page 100, evidence is of no account to him, for as he says, such "evidence will not hold in court."

He credits me with stronger language than I had thought of, but I guess he had it about right when he makes me say, "Ha! my man, I have got you now."

I do not wonder that he "throws all the responsibility" on some one else (Mr. Pettit, for instance), and "ignores all responsibility" himself. Mr. Pettit never denied claiming superiority for Canadian honey, as I know of.

As I read along in Mr. McKnight's article, I am more and more amazed. He first denies all "responsibility of claiming superiority for Canadian linden honey," and then a few lines further on says, "Yes, we did say to the editor of the *Pall Mall Budget* ...'We think that for *color, flavor and specific gravity, we throw all other honeys in the shade*,' and I am willing to father the statement, and abide its consequences." If "color, flavor and specific gravity" does not constitute *quality*, what does?

Now if I ever should make such contradictory statements, I believe I should be willing to admit that whoever exposed me was doing just what Mr. McKnight avers, when he says, "Verily, the Doctor is bringing things to an unpleasant crisis."

So the "responsibility" is not on Mr. Pettit, after all, for Mr. McKnight is its "father" instead of Mr. Pettit, as I had supposed. It was Mr. Pettit and the managing committee I began on, and Mr. McKnight stepped in between, and "takes the consequences."

Yes; I do "bear in mind" that it was the exhibit as a whole, "and not of the merits of linden alone," that was spoken of; but that only makes the matter worse for Mr. McKnight, who further says, "We took the position that we can beat the world....in the high grade of quality of our honey product." Yes, sir; and then denied it! and "that's what's the matter!" The matter of *quality* has already been discussed, and Mr. McKnight has admitted the truthfulness of my statements, so I need say nothing on that score.

Yes, I *did* know that the claim that "Ootario lies within the United States" was a mistake, and I am not sure but that his statement, "that the delegates, one and all, would rather be sitnated outside the 'honey-belt' than in the Union," is also a *mistake*.

Since the appearance of my article that Mr. McKnight "goes for," I have received several letters about it, and one of them from Canada, starts out in this way: "Dr. A. B. Mason, Sir:—If you ever dare to set your foot in Canadian territory, we shall shake the fun out of yon, as we do the honey out of the linden trees here," etc.

That looks rather threatening, but just bear in mind that I am not afraid of any, or all the Canadians that breathe, and if I am able, I will be at the International Convention at Brantford, and if I do not have a "glorious good time" with Messrs. McKnight, Pettit, Corneil, Jones, and a few score more of Canada's whole-souled beekeepers, it will not be my fault. Mrs. Mason says she is going with me to keep me straight. She is getting into quite a habit of doing that way, or I do not know what would become of me.

I want to assure Mr. Pettit, and all other Canadians, that I have none but the kindliest feelings towards them, and that for Mr. McKnight "with all his faults, I love him still," and am still in "the field."

Thanks, Mr. Editor, for your kindness in allowing Mr. McKnight and myself this privilege. A. B. MASON.

Auburndale, O., Feb. 21, 1889.

As further controversy would be useless, we close it while both disputants feel so kindly towards each other.

An "Explanation" Explained.

—Mr. Allen Pringle, of Selby, Ont., on Feb. 25, 1889, writes as follows:

"I rise to a point of order," to make a personal explanation in self-defense. The part of Mr. Holtermann's explanation on page 116, which refers to myself, is misleading; and without imputing any intention to misrepresent or mislead, I must set myself right in this matter.

In defending himself against Mr. McKnight's charge of suppressing my essay in his reports to the AMERICAN BEE JOURNAL and his own bee-paper, Mr. H., to show that there was no "personal pique," refers to the fact that he "paid my membership fee before the election of officers, so that I would be eligible for office." It is quite true that Mr. H. kindly *advanced* my fee without my knowledge, in my absence from the meeting; but it is also true that I had never been in the habit of sending my annual membership-fee until *after* the annual meeting; and as soon as I became aware of what Mr. H. had done, I remitted the money to him, that he had, of his own accord, advanced, thanking him for his kindness.

Had I been on the lookout for office, my membership-fee, and very likely myself, would have been on hand; but believing in the principle that the office should seek the man, rather than the man the office, I have not only sought no offices in my life, but have almost invariably refused them when offered to me.

Of course I noticed the omission from Mr. Holtermann's reports to both bee-periodicals, of which Mr. McKnight complains, but thought little, and said nothing about it, knowing that the world would move along as usual, and supposing that Mr. H. knew the reason for such omission, whether anybody else did or not. I must now, however, accept his explanation of that omission. ALLEN PRINGLE.

Selby, Ont., Feb. 25, 1889.

QUERIES & REPLIES.

Getting the Honey Out of the Cappings.

Written for the American Bee Journal

Query 617.—What is the best and the most practical way of getting the honey out of the cappings from extracting-combs?—J. M.

Use a good strainer; then rinse and make vinegar,—A. J. COOK.

I use a large can with a perforated bottom, and allow the honey to drain. —J. P. H. BROWN.

An uncapping-can that will allow the honey to drain off below, is as good as anything that I know of.—EUGENE SECOR.

A gauze-wire receptacle in a warm room, and let them drain for several days.—J. M. HAMBAUGH.

By pressure, properly applied. Put them in a bag; use a clean, flat piece of board as a *lever*.—WILL M. BARNUM.

Drain out what you can handily get, then put the rest in a sun wax-extractor, and that will separate the wax from the honey perfectly.—G. M. DOOLITTLE.

Carefully melt them, let them cool, and then take the wax from the top. You can let the bees do it, if you are not afraid of robbing.—H. D. CUTTING.

Let it drain through a wire-cloth strainer, turning it or stirring it up a time or two.—M. MAHIN.

Heat gently, but enough to melt the wax in a solar wax-extractor or otherwise, and when cool, the wax may be lifted off the honey in a cake.—R. L. TAYLOR.

Drain them through a sieve or capping-can, in a warm place. What little remains may be washed out for vinegar purposes, or for metheglin.—DADANT & SON.

Let it drain on wire-cloth, about ½ mesh to the inch. The little honey left after draining for 3 or 4 days, can be washed off and used for making vinegar.—P. L. VIALLON.

After letting them drain in the uncapping-can, take them out and place them in pans or other shallow vessels, and give the bees access to several of them at one time, at a period when there is little or no honey in the fields. —MRS. L. HARRISON.

Put the cappings in a solar wax-extractor, after allowing them to drain thoroughly. The honey *drained* out is of full quality—that from the wax-extractor is slightly injured in quality by the heat.—J. M. SHUCK.

I know of nothing better than the so-called solar wax-extractor. It brings out the honey in the nicest shape, of anything I know of.—J. E. POND.

Let the cappings drain well, and then wash and use the sweetened water for vinegar; or, after draining, set them where the bees can clean them up. There is no danger of exciting robbing, if placed some distance away from the apiary.—A. B. MASON.

I shave the caps off into a box with a wire-cloth bottom, set over a tin-pan made for the purpose. When all has drained off, or say the next morning, empty the cappings into the sun wax-extractor, and you will soon have a nice cake of wax, with the balance of the honey under it.—C. H. DIBBERN.

Most of it will drain out, with time enough, in any receptacle, with perforated or wire-cloth bottom; then soak and drain out the balance for vinegar or bee-food. It will drain faster, and perhaps without soaking, in a cool cellar.—C. C. MILLER.

When taking honey with the extractor, the cappings are dropped into a box supported by legs of convenient hight. The uncapping-box has its bottom inclining downward toward a common centre, which is a square hole covered with tinned wire-cloth, with about 8 meshes to the inch. A large tin-pan catches the drip. After the cappings have been drained 24 hours or longer, they are put into the solar wax-extractor, which is adjusted nearly level, until all the honey is run out. It would wake up most bee-men to see how much honey I save in this way.—G. W. DEMAREE.

Stir the cappings up loosely, filling a common flat pan a little less than level full of them; put this pan into the oven, leaving the door partly open, so as to bring only a slow heat upon the top. By-and-by both honey and wax will be liquid. Set it away carefully, and let it cool. When the wax has hardened, and the honey is still

warm, tap the wax at the edge of the pan, tipping it up, and the warm honey will drain out clean. Now fill the pan with water, and thoroughly wash the wax from stickiness, and the honey that is obtained is first-class. The reader will see how solar heat can be used at the right time of year to accomplish the same result.—J. HEDDON.

If you should melt the cappings carefully in the stove oven, and let the melted matter cool, then take off the wax from the top, you will save both the honey and the wax.—THE EDITOR.

BIOGRAPHICAL.

MR. EUGENE SECOR.

We have great pleasure in presenting to our readers an engraving, showing the personal appearance, and a short biographical sketch, of America's "poet-laureate of apiculture"—Mr. Eugene Secor.

For the past ten years Mr. Secor has been writing poetry and prose for the AMERICAN BEE JOURNAL and other periodicals, some of the best of the poetic effusions being "Lessons from the Ivy," the "Honey-Moon," the "Bees are Swarming," "Weighing the Baby," and "Gathering the Clan." The latter, descriptive of the Bee-Convention at Chicago in 1887, is so rich that we introduce it here as a sample:

At Chicago they met, a right jolly set,
On a soft, balmy day in November;
Such a "buzz" and "roar" I heard once before—
At an old cider-mill in September.

From the West and the East, to this saccharine feast,
Came the "workers" cheerfully "singing."
And tho' each had a wish to "sip" from the dish,
But few were inclined to be "stinging."

They talked about bees—their *legs* and their *knees*—
Of the God-given nectar in flowers,
Of its value as food, of bare-headed brood,
And the late sad failure in showers.

Our "countryfied ways," the reporter says,
Betrayed the bent of our calling.
At this we're not mad, but exceedingly glad
That our looks far exceeded *his* scrawling.

Such a constant *hum*, without *smoke* or *drum*!
'Twas said each had a "bee in his bonnet;"
But whether that's so, one thing I *do* know,
The "hive" had a *Miller* upon it.

The *Mason* bee took the *Miller* to *Cook*,
Who adjudged from its size and demeanor,
There was no need to tread on nor even put a *Hedd-on*
As it lived on "Sassafras" *Root*—a gleaner.

For three days and nights, surprises, delights,
Made us happy as bees in sweet clover;
'Tis a bright *Green* spot, not soon forgot—
In memories *Hutch*, a rich trover.

'Twould fail me to tell, how the "honey-dew" fell
From many sweet lips, though human;
But I for one, when convention was done,
Went home from Chicago a *New man*.

Mr. Secor wrote the poems used at the Bee-Convention at Columbus, O., last fall, which were set to music by Dr. C. C. Miller for the occasion.

Mr. Secor is not only a poet, but he is also humorous writer. One of the best articles in this line may be found in the BEE JOURNAL for 1883, page 259. It is an amusing sketch, protraying some of the troubles incident upon removing bees from cellars, and is written in the form of a "play"—a jubilee concert. If ever the reader feels blue, just read that and laugh—laugh until you feel "jolly." We laughed over it until we forgot all of our troubles, and all business besides. Try it, and see if it is'nt an excellent antidote for *the blues!*

Then in 1886 he wrote an article of the same character (see page 728),

MR. EUGENE SECOR.

illustrating this maxim: "What's the use of having friends, if you don't use them?" by detailing his experiences with neighbor Smith, who "never buys anything he can borrow!"

The following was published in a local paper, last year, concerning Mr. Secor. That sheet purported to be "Columbia's Letters to Uncle Sam" about Forest City and its principal citizens:

Mr. Eugene Secor is a member of the Real Estate firm of Secor Brothers & Law, Forest City, Iowa, and a man whose history is prominently a part of Winnebago county since 1862. He is a native of Putnam county, N. Y., and was born May 13, 1841.

A boy of 16, he removed with his father to Shrub Oak, Westchester county, where, until the years of manhood were reached, he alternated between work on his father's farm and in pursuing his studies at the district school. His majority attained, he came to Forest City, working during the summer at the mason's trade, and in the winter teaching school.

Ambitious for a classical education, he entered Cornell College, at Mt. Vernon, in 1864, but his brother David going to the war, it became incumbent on him to oversee his brother's official business, he being the Treasurer and Recorder of Winnebago county, consequently the subject of this mention was installed into the duties of Deputy County Treasurer and Recorder, also Deputy Postmaster of Forest City, which position he held for two years.

In 1867 he was Deputy Clerk of the District Court, and in 1868 he was elected District and Circuit Clerk, which office he held to the unbounded satisfaction of the people for three consecutive terms, being elected the last time without opposition. He was elected County Auditor in 1875, and chosen his own successor two years later without opposition.

He was chosen the first Mayor of Forest City, and re-elected three consecutive times. Retiring from the mayoralty, he was elected City Councilman, which position he still holds.

He is a member of the banking house of Secors, Law & Plummer, and the real estate firm of Secor Bros. & Law. In addition to these interests, he conducts a considerable farm, is an enthusiastic fruit-grower, and has the largest apiary in the county.

In 1866 Mr. Secor wedded Miss Millie Spencer, a lady of rare endowments, of Erie county, Ohio. Nine children have been the issue, 3 only surviving—Willard, Alson and Nina.

Mr. Secor takes a laudable interest in school matters. He is a generous supporter and active member of the M. E. church. In short, Mr. Secor is a shining example of western opportunities. He came to this section with good intentions as his only capital, and has by virtuous procedure in all the walks of life, accumulated a comfortable fortune, and firmly established himself in the esteem of his neighbors and fellow-citizens. Mr. Secor also honors the position of Trustee of Cornell College at Mt. Vernon, also Trustee of the State Agricultural College.

He has charge of one of the experiment stations established by the State Horticultural Society to determine the hardiness and desirableness of new fruits, trees and shrubs, before being recommended by the Society.

The various positions of honor that Mr. Secor adorns bespeak the exalted respect in which he is held throughout Iowa. He is Vice-President of the State Horticultural Society; and the President of the Winnebago County Agricultural Society, he being one of the organizers of the latter institution,

and the one to whom is due in largest measure the magnificent success that waited upon its initial Fair last season.

But Mr. Secor is not only a man of keen business perception, but is happily versatile in a literary direction, and by the fluency of his pen in both the spheres of prose and poetry, he has won no little distinction. Mr. Secor is firmly intrenched in Republican principles, and in a word, is a citizen sharing the good-will and esteem of all, and an invaluable member of society.

Mr. Secor is mentioned in the above as an enthusiastic fruit-grower, and as having "the largest apiary in the county." To know something of his apicultural experience then will be interesting to our readers. For their benefit we have gleaned the following:

His bee-keeping experience began in 1870, when he paid $10.00 for a prime swarm of black bees, having paid $3.00 to a carpenter, who was also a bee-keeper, for a frame hive to put them in. He knew nothing of bees, and could not tell a comb filled with sealed brood, from one with sealed honey. He secured a copy of "Quinby's Mysteries of Bee-Keeping Explained," and soon became a subscriber to the AMERICAN BEE JOURNAL and *Gleanings*. All of the books on the subject published in America have been added since, and all the bee-periodicals.

Like all enthusiasts in the business, he tried to improve the frame-hives already in use, by one of his own invention, and various contrivances were experimented with. Owing to the various other duties that take so large a share of his time, he has now given up the idea that the bee-world will all go to smash if he does not put a new hive on the market, nor write a bee-book, nor start a new periodical.

The number of colonies of bees he has kept, has never exceeded 50. His aim has been to keep the number so small that he could manage them without hired help, and at the same time attend to more profitable business. But while bee-keeping has been pursued for the pleasure and education it afforded, he has always made it pay. When he says he has 50 colonies, he does not mean that he has that many hives *with bees in*, but expects every one to yield a profit. He endeavors to keep down increase, and keep up the production of the colonies.

He was a member of the late North American Bee-Keepers' Society, and Vice-President for Iowa for two years. He is a member of the Iowa State Bee-Keepers' Society, and only avoided being its President for the current year by a vigorous protest on his part.

CORRESPONDENCE.

CONVENTIONS.

The New Constitution and By-Laws—Essays.

Written for the American Bee Journal

BY DR. C. C. MILLER.

I am very glad that at this early day there is interest taken in what I hope may be a very profitable meeting at Brantford, Ont. On page 747 of the AMERICAN BEE JOURNAL for 1888, Secretary Holtermann takes up with earnestness some points especially relating to the change in the Constitution, and does it so good-naturedly that it will be an easy matter to talk over any points on which we disagree.

I objected to the name, "The International American Bee-Association," because it seemed to me rather cumbersome, and although "American Bee-Society," as Mr. Newman says, "is short, expressive, and appropriate," still there may be other names equally good. Is the proposed striking out of the word "American," however, from the original name, that which will give us what we want?

"International Bee-Association" is a more comprehensive term than the original name, and is on that account objectionable. To have a society that takes in the United States and Canada sounds pretty big, but when you drop out the "American" and take in the whole world, is it not a misnomer? Mind you, I do not object to getting representatives from across the water—I admire the grit of Bro. Holtermann in thinking that a number of the leading men from other nations can be got to Brantford, and I should *very much* like to meet them there, but it would hardly be an International society unless we could confidentially count on their attending regularly our annual meetings. If we are to use the name "International" with no limiting word before it, the German, English and other societies may with greater reason use the same name, for they have larger meetings, and are, no doubt, just as willing to receive representatives from abroad.

I agree with Mr. H., that life members should equal annual members in privileges.

I do not know enough to say whether it is better to have "time and place" fixed at a previous meeting, or to leave the Executive to decide later. I suspect there are difficulties on both sides. The Executive Committee consists of the President and Secretary, and it is barely possible that there might be a tie vote between the two, or that their decision might not be so generally satisfactory as that of a larger number, or that they might be a little tardy about making their decision. On the other hand, there are often reasons that come up later for a different decision, and it is not always easy to know a year ahead what is best. How would it do to have time and place fixed "at the previous annual meeting," and at the same time give the Executive Committee power to change within a given time, if they saw sufficient reason for doing so?

Article VIII of the By-Laws, Bro. H. says "is optional .....Dr. Miller is wrong; he says *is* to be formed." I have read that article over several times, and I cannot make out anything optional. It says, "A committee of five *shall* be elected, who *shall* have power to organize itself into a 'Honey Company,' etc." It seems to me that means the Honey Company *is* to be formed. If not, then all the articles seems to me optional, for none of them have anything stronger than "shall."

Essays at Conventions.

And now a word upon the remarks of Prof. Cook, on page 740 of the AMERICAN BEE JOURNAL for 1888. He thinks that the Society will do the most good, among other things, by "securing essays for each meeting from representative men from all sections." From this expression, and more especially from expressions I have heard the Professor make publicly, I understand him to think that men who are not present should be represented by essays. It may not be entirely fair to reason from extremes, but there is a good bit of fairness in it, and we might try it. Suppose we have all the representations by essays. Then, as in the great majority of cases, the Professor would get more satisfaction from reading an essay himself, than from hearing it read by an ordinary reader, it would be better for him if all the essays were printed in a pamphlet together, and sent for him to read in the quiet of his pleasant home. In short, a bee-paper filled with good articles would make a good convention.

Commenting upon the Professor's remarks, the editor says: "We agree with the Professor in regard to obtaining essays. The other plan has been 'tried and found wanting.'" "Et tu, Brute!" Do you not recall several meetings we have had in Chicago, friend Newman, chock-full of interest, and those meetings free from essays? I fancy I see the astute editor of the AMERICAN BEE JOURNAL, as he turns his head slightly to one side, looks through his glasses for a

second with a far-away look, then a half-meditative and wholly good-natured look steals over his face as he says, "True, O, King!"

Do not understand that I think essays have no value, but I think, all things considered, a convention is better without them.

Marengo, Ills.

[Now, Doctor, some may think you called the Editor a brute, if we leave it there. You should have explained your Latin exclamation: "And thou also, Brutus," or as we sometimes vulgarly say, "Ditto." Oh, yes, we remember well many conventions without essays which have passed off very nicely, but as a general rule we believe it to be far better to have a subject presented in an essay to which the writer has given some thought, and then have the impromptu discussion follow. We are glad to be able to disagree with Dr. Miller once in awhile just to give variety. Being so generally correct, we cannot often find a chance to do so. We usually have to reply, "True, O, King," and there leave the subject.—ED.]

BEGINNING.

Some Helps to Beginners in Bee-Keeping.

Written for the American Bee Journal

BY MRS. B. J. LIVINGSTON.

Once upon a time, a gentleman was getting up an excursion party to visit various places of interest. Having a friend experienced in such matters, he applied to him for advice. Among other things, his friend said, "Be sure to take one fool along, to ask the questions which the wise ones of your party will be ashamed to ask."

Now I supposed that would be my position when I joined the great excursion party into Bee-Territory; but lo, before I can take my pen to ask the question that is on its tip, some kind guide volunteers to tell me just what I wish to know. So, instead of asking questions, I wish to express my gratitude to those correspondents who describe the details of the business so patiently and persistently.

If I had written a few weeks ago, I should have given a half-dozen names that I thought specially helpful; but as I begin to understand more and more what the experienced are talking about, each article is helpful. I hope that they will not get wearied, but continue to hold out the light towards beginners.

I suppose that I am not the only one who, in bee matters, resembles the bride in pie matters, viz: She wished to surprise her husband with a pie of her own make. She read in her cook-book, "to make a crust, take equal parts of lard or butter, and water, and mix to a stiff paste." The poor thing mixed the lard and water a long time, without favorable results. The directions never mentioned the *flour*. Fellow bee-keepers, that is why I like your articles so well—you do not forget the flour!

In my article on page 54, I spoke of my friend's apiary, using, in my haste, an unfortunate word. When I think of her beautiful home, with the many frame hives clustered cosily here and there among the shrubbery, with all her surroundings, showing such a highly cultivated mind, one word should have been left out. What I really meant was, that I saw no costly honey-houses, bee-cellars, extractors, or the thousand and one things considered as great conveniences to those handling bees.

When her sections run out unexpectedly, I think she uses little boxes from the stores, sawing out places for a piece of glass, and fastening the glass in place with paste and strips of cloth or paper, so that she can see what the pets are doing. She uses a great many newspapers—I must see her again and ask her about that; perhaps it is to shut in the bees, and keep the propolis from the outside of the boxes.

Center Chain, Minn.

MICHIGAN.

Newaygo County Farmers' and Bee-Keepers' Convention.

Written for the American Bee Journal

BY GEO. E. HILTON.

The Newaygo County Farmers' and Bee-Keepers' Association met on Feb. 19, 1889, at Fremont, Mich. The attendance being small in the morning, the meeting was called to order at 1 p.m., by Vice-President T. H. Stuart, and opened with prayer by the Rev. Mr. Hodges. Then followed the Secretary's report of last meeting, which was adopted as read.

An essay on "Profitable Winter Care of Stock," by Wilkes Stuart, was thoroughly practical, and we can point to no better proof of his assertion than his own stock. Rev. Mr. Tower made some able and humane remarks on the above subject, having spent a portion of his life on the farm.

Mr. Macumber did not think it paid to feed stock or raise calves for sale in this latitude, and thought the straw and grain fed would bring more than the stock.

"Creamery," by T. H. Stuart, introduced statistics showing that butter was produced on the improved plans for less than five cents per pound, and that the cost of the plant was but $3,000.

Mr. Olney was very much in favor of a creamery, but would like to know how much he was to receive for his cream.

Wilkes Stuart was in favor of a co-operative creamery, and thought the farming community should establish the plant and reap the benefits.

He had used the Fairlamb can and liked it better because there was more work about it; he was satisfied that all the cream would rise in six hours.

Mr. Walker's experience corroborated with Mr. Stuart's, but he usually let the cream stand 24 hours. Mr. Walker attributed the scarcity of butter at the present time to the fact that previous to the passage of the oleomargarine law compelling the manufacturer to brand and sell it as such instead of butter, the country was flooded with the spurious article to such an extent that butter was forced down to 10 cents per pound, and cows were sold for beef, and had not yet been replaced.

"The Relation of Agriculture and the Agriculturist to the Rest of Mankind," was treated by Thos. J. G. Bolt, who championed the cause of the farmer in words as strong as the English vocabulary contains. A much better understanding of the object of his paper was attained through a very interesting exchange of thought between himself and the Rev. Mr. Hodges, who plainly showed that he knew what farm life was in Canada.

"Little Things in Housekeeping," by Mrs. P. W. Hall, was full of good suggestions, and well received.

SECOND DAY.

MORNING SESSION.

"In the Adaptability of Bee-Keeping for the Farm," by A. M. Alton, he did not advise fruit-raising in connection with bee-keeping, as the busy seasons both came at the same time.

Mr. Gould asked if that did not hold good in general farming.

Mr. Alton concluded that in either case the profits secured through the bees more than balanced the losses.

Mrs. Mallory thought the women could care for the bees.

Mr. Alton recommended farming less land, and keeping some bees.

Mr. Boyd said the profits from 40 colonies of bees doubled the profits on 40 acres of land.

Mr. Horton advised bee-keeping mixed with farming.

"Advice to Young Farmers' Wives," could not have came from a better source than Mrs. M. W. Scott; it was a most excellent essay.

AFTERNOON SESSION.

Upon a vote being taken, it was decided to hold the next annual meeting at Hesperia, Mich.

The election of officers resulted as follows: President, M. W. Scott; 1st Vice-President, T. H. Stuart, 2nd Vice-President, M. Thompson; 3rd Vice-President, Geo. W. Ada; Secretary and Treasurer, Geo. E. Hilton. Committee on Resolutions, M. W. Scott, Wilkes Stuart, and Wm. E. Gould.

"Practical Butter-Making," by Mrs. S. V. Walker, brought out many useful suggestions.

Mr. Walker said he knew butter would attract the odor of vegetables through a brick wall.

The general verdict was that the cold setting of milk was preferable, both as a saving of labor and an increase of profits.

Mr. Wm. E. Gould then read the following essay on,

The Use of the Extractor—Extracted Honey.

Prof. A. J. Cook has well said, "Since Mr. Langstroth gave the movable-frame hive to the world, the apiarist has not been so deeply indebted to any one inventor as to him who gave us the honey-extractor, Herr von Hruschka, of Germany."

The latter half of the Nineteenth Century will be styled by future bee-keepers, "The golden era of apiculture." But a few years ago bee-keeping was in a barbaric state; following the invention of the movable-frame hive by Rev. L. L. Langstroth in 1852, came many inventions of apiarian implements—some poor, but many of great value—which have made bee-keeping what it is to-day.

One of Michigan's leading bee-men has said, that bee-keeping has reached its mamimum greatness, or something to that effect. I differ from him—our chosen pursuit is yet in its infancy—it will not have reached its maximum greatness until on every hill and by every stream is heard the low murmuring of the busy bee, and no flower shall bloom in vain, or "waste its fragrance on the desert air."

Extracted honey should never be called "strained honey." In the good (?) old days of the box-hive, when a colony had died, or had been brimstoned, the comb containing honey and pollen was cut out of the hive, mashed up, and then strained. Honey secured in that way is strained honey, not extracted. Of necessity much pollen remained in the honey, often imparting a flavor not to be desired. Extracted honey is thrown out by a machine called "the extractor," and never contains pollen. Pollen in unripe honey, or, more properly, honey that is extracted before the bees have capped it, will ferment, thus giving the honey a disagreeable taste.

The extractor is simply a large can containing a basket made of coarse wire-cloth. The basket can be revolved, and will contain two or more frames of comb. Before the combs are placed in the extractor, the cappings are shaved off with a knife made especially for the purpose; then the basket is revolved. The centrifugal force thus created causes the honey in the outer side of the combs to fly out against the inside of the can, then, by reversing the combs, the honey may be thrown out of the other side.

Advantages Derived from the Use of the Extractor.

The use of the extractor enables us to secure double the amount of honey, and the combs after being extracted from, may be placed back in the hive to be filled again, thus saving the bees a great deal of work just at the time when every minute counts. Nor is this all. Every bee-keeper knows that large quantities of honey are consumed by the bees when secreting wax for comb-building; now if empty combs are placed in the hive when needed, the honey that would have been used for making wax, is stored along with the surplus honey, thus increasing the product of the colony for the season.

Honey must be coming in in large quantities to insure comb-building, hence in a poor season the bees are very slow to occupy the sections. In such a season a fair crop of extracted honey may be secured when the comb honey crop would be a failure.

When we do not desire any more bees, increase may be prevented much more readily by the use of the extractor than by any other method.

As extracted honey can be produced in larger quantities than comb honey, and can be produced cheaper, hence it finds a more ready sale among the laboring classes generally than comb honey. Extracted honey is rapidly gaining in favor, more than one-half of the honey produced in the United States being extracted.

At the end of the season all unfinished sections may be extracted, and thus what honey is in them is secured in salable shape. The sections, after having been cleaned up by the bees, should be stored away where they will be safe from dust. The next season they will be valuable to entice the bees into the crates of sections.

By using comb-baskets, broken pieces of comb and pieces of drone-comb, that have been cut out of the hive, may be extracted, and the comb used for starters.

By proper arrangements, extracted honey may be secured in the spring and late in the fall, and comb honey in the summer; thus we would secure the best honey in the sections, and the poorer as extracted. By this system more honey is secured, for as I have before said, extracted honey may be secured when the bees will not work in the sections.

The mistake made by amateur bee-keepers is in extracting so closely that the bees starve. When the honey has been taken too closely, the bees should be fed.

Often in the spring the bees fill the brood-combs so full of honey that the queen has not room to lay, thus the value of the colony for the season is impaired; now if the bee-keeper has his eye on affairs, he may throw the honey out of all the combs but the two outer ones, and thus give the queen a chance to lay; but a watchful eye must be kept, for the bees are apt to do the same thing over again. This extracting usually stimulates the bees.

In the fall, all objectionable honey may be taken from the brood-nest, thus giving more surety of safe wintering.

After being thrown out, the honey should be passed through a cloth to free it from little particles of wax—I purposely refrain from the use of the word "strainer." In cold weather it is well to heat the honey, as it flows more readily when warm. In warm weather, if the honey is allowed to stand over night, the wax will rise to the top, when the clear honey may be drawn from the bottom.

Honey should not be extracted until capped; if extracted before, it is thin and watery, and is said to be "green" or "unripe." Green honey is not very palatable, and most of what is thought to be adulterated honey is this very same green honey. With sugar at 8 to 9 cents per pound, and honey at 10 cents, and dealer's commission 20 per cent., what profit could there be in adulterating with sugar?

"But," says one, "how about feeding cheap sugar to bees, and letting them store it in the surplus apartments?" That amount will be used, no matter what the source of the food. Now where is the profit?

The best proof of the purity of honey is its candying. When the temperature goes below 80°, Fahr., honey will candy. Remember that sugar syrup

will not do that, no matter whether the bees or the dealers store it.

To bring candied honey back to a liquid state, slowly heat it; then, if sealed when hot, it will not candy again. When heating, it must not reach the boiling point—a much lower temperature is sufficient.

Extracted honey sells better if put up in small packages. I prefer the pint and quart fruit-cans, as these are of use to the purchaser after being emptied.

People often ask me where honey should be kept, and invariably they think that a cool, damp place is the best. Honey should always be kept in a warm, dry place. It does not matter what kind of honey, for no honey should be kept in a cool, damp room.

WM. E. GOULD.

After the adoption of several resolutions, and the appointment of a creamery committee, the convention adjourned. GEO. E. HILTON, *Sec.*

GOOD HONEY YEAR.

The Prospects for the Season of 1889.

Written for the American Bee Journal

BY HENRY K. STALEY.

The low center of atmosphere which has been moving eastward struck us quite heavily here to-day, and with its round about-to-the-west motion, brought up some warm air from the sunny South, producing effects that could not be said to be far from those of summer.

Consequently to-day, Feb. 16, colonies are having a busy time in carrying out defunct bees, and rendering the bottom-boards of their hives free from the excrementitious ordure that congregated itself their during the winter months. But maugre all this seemingly unpleasant household work, they are having a pleasant time in exercising their wings—but not their stings; at least not on my cutis as in days gone by, and limbs.

It was a pleasant sight for me to stand and watch them in the act of circumvolation, after being confined so many days to winter quarters. As I stood and looked at my bees cutting divers circles, and ellipses, I could not help thinking about the Minor Planets—of which there are some three hundred—how that, in all their deviating ambits, and their great eccentricity of orbits, they neither touch nor collide with one another; when, if it were desired to lift one out with its orbit, all the rest would have to come along, so numerously intersected are their ambits.

Therefore, I say, the apicultural vista that met my gaze seemed to me to resemble the astronomical sight that presents itself to the eye of the astronomer peering through the immense teleseope; and, I can say that it was as pleasant to me as the aforesaid sight of the astronomer is to the man of stars and planets, albeit a modicum of each is visible to the eye at once.

The winter here has been a mild one, and so far all my colonies are alive. Of course we do not know what is coming.

Heaven from all creatures hides the book of fate,
All but the page prescribed, their present state,

and if their is not a killing frost, accompanied with baleful effects to the bees, between this time and spring, I think that we can safely say, this year is going to be a boomer for apiarists in general. Therefore, since we have this hope, let those apiarists who have met disaster after disaster, awake themselves from out their lethargic state of misfortune, and press forward to the goal of success, rendering everything in readiness to catch the "honey showers," and be found not napping when the huge gates of nature, that guard the honey canal, shall drop open, and let in the "little busy bee."

Pleasant Ridge, Ohio.

NEBRASKA.

The Report of the State Bee-Keepers' Convention.

From the Nebraska State Journal.

The tenth annual meeting of the Nebraska State Bee-Keepers' Association began in the Botanical Lecture Room of the University on Jan. 9, at Lincoln, Nebr., at 3:30 p.m., with President M. L. Trester, of Lincoln, in the chair.

Nothing of special importance beyond perfecting the preliminary organization was done in the afternoon meeting, but a little discussion was had on granulated honey.

In the evening the Association listened to a report on glucose, and an essay on wintering bees, by R. V. Muir. A general discussion followed, participated in by nearly all the bee-keepers present, and covering the entire subject.

A vote of thanks was tendered Mr. A. Tower, for his able work in conducting the bee-column in the *Western Resources* during the past year.

An adjournment was taken at 10:40 p.m. until 9 o'clock the next morning.

SECOND DAY.

The convention began with an essay treating on the question, "Does it pay to plant for honey?" by A. C. Tyrrel, of Madison. Mr. Tyrrel advised planting clover for early forage, and melissa for surplus honey in the fall.

Mr. Johnson agreed with the essayist in recommending planting for honey, and advised adding alfalfa to the list of profitable plants.

Mr. Tower suggested that buckwheat ought to be added.

Mr. Muir thought it hardly advisable to plant for honey except in the case of melissa.

Mr. Hardy favored all of the plants mentioned, but thought that none of them would pay to plant for honey alone.

Mr. E. T. Abbott had visited Colorado, and was much pleased with alfalfa. He said that it produces excellent honey, and makes good food for stock.

Mr. Whitcomb recommended alfalfa, if planted where it could be irrigated, or in soil that is not deep to water. Other suggestions were also made by various members, the discussion being very interesting and profitable.

A report of the work of the season was made by Mr. R. R. Ryan, of Bradshaw. He reported that he increased his apiary by division, and complained of imperfect queens. The subject of rearing prolific queens was discussed. a majority favoring rearing queens under the swarming impulse, and dividing the colony when it swarms.

The address of the President, Mr. M. L. Trester, was given in the afternoon. Many valuable suggestions were made, the most important being that pertaining to a better law in regard to foul brood.

An essay was read by Mrs. J. N. Heater, of Columbus, on "How to produce the most honey in marketable shape." As this is the object of all the bee-keepers, the essay was discussed at length. All were of the opinion that it is necessary in this region to keep bees breeding at stated times, in order to have a large number of workers to gather the nectar when the flowers that produce honey are in bloom.

The remainder of the afternoon was taken up with a discussion of the subjects, "How much foundation should be used, if any?" and "How to dispose of honey to the retail trade?"

The evening session was well attended, and the meeting proved to be a very interesting one. The principal feature was an essay by Rev. Emerson T. Abbott, of St. Joseph, Mo., on "*Bees and Horticulture.*"

Mr. Abbott explained that when he prepared the essay he did so with the understanding that the Nebraska State Horticultural Society would meet in Lincoln at the same time and place, and in view of this fact. the subject,

"Bees and Horticulture," had been decided upon.

When the essay was nearly completed, he learned that the Horticultural Society would not meet with the bee-keepers, but, as the subject was a fitting one, he did not change it.

The great mutual benefit to be derived by the bee-keepers and the fruit growers acting in harmony was commented upon.

At the conclusion of the address there was considerable discussion on the subject, after which the meeting adjourned until 9 a.m. the next day.

THIRD DAY.

The morning session was devoted to routine business, and an inspection of the buildings of the University, under the guidance of Prof. Bessey.

Among the principal business done was the report of the committee appointed to consider the recommendations of the President. The request that the Constitution be so amended as to make the tenure of office one year instead of two, was reported upon adversely, and the Association agreed with the committee. In the matter of foul brood, it was decided to appoint a committee of investigation, consisting of Messrs. Johnson, Whitcomb and Burnett.

Mr. E. Whitcomb was recommended to the State Board of Agriculture as a satisfactory man for the place of Superintendent of the bee and honey exhibit at the next State Fair. Messrs. Whitcomb, Burnett and Tower were appointed as a committee to revise the Premium List for the State Fair, and endeavor to get more and larger premiums.

The convention then adjourned to meet in Lincoln, on the second Wednesday in January, 1890.

J. N. HEATER, *Sec.*

Convention Notices.

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at the Court House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.
H. M. SEELEY, *Sec.*

The Cedar Valley Bee-Keepers' Association will hold its next semi-annual meeting at Waterloo, Iowa, on March 13 and 14, 1889. All interested are invited. J. J. OWENS, *Sec.*

☞ The DesMoines County, Iowa, Bee-Keepers' Association will hold its annual convention in the Court House at Burlington, on April 23, 1889, at 10 a. m. All bee-keepers are invited. JOHN NAU, *Sec.*

☞ The 11th annual session of the Texas State Bee-Keepers' Association will be held in the apiary of W. R. Graham, of Greenville, Hunt Co., Tex., on May 1 and 2, 1889. All bee-keepers are invited. The last meeting was held here last May, and was the best ever held. So we look forward to a good time next May. A cordial welcome and hospitality will be tendered to all who come. G. A. WILSON, *Sec.*

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Mar. 13, 14.—Cedar Valley, at Waterloo, Iowa.
J. J. Owens, Sec., Waterloo, Iowa.

Mar. 30.—Agency, at Agency, Mo.
T. S. Smith, Sec., Agency, Mo.

Apr. 23.—DesMoines County, at Burlington, Iowa.
John Nau, Sec., Middletown, Iowa.

May 1, 2.—Texas State, at Greenville, Tex.
G. A. Wilson, Sec., McKinney, Tex.

May 4.—Susquehanna County, at Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 21.—Northern Illinois, at Pecatonica, Ill.
D. A. Fuller, Sec., Cherry Valley, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Fine Flights Every Week.—R. R. Ryan, Bradshaw, Neb., on Feb. 23, 1889, says:

The bees on the summer stands have had fine flights every week this winter. This is the first cold spell we have had to speak of, two days, and it was 14° below zero last night. We think that the prospects are good for next season. Bees had plenty of honey in the fall, and the winter has been so mild. If the spring does not keep too cold and late, it will be all right.

Separators a Nuisance.—H. C. Gifford, Morris, Ills., on Feb. 26, says:

I have 28 colonies of bees, and work them for comb honey. I do not use any separators. Last year I used the 2-inch sections, and they would average over a pound each. I had 1,750 pounds of honey in one-pound sections, and not more than 40 of them were joined to each other, so I consider separators a nuisance, for the bees will fasten the combs to separators sometimes. I have sold nearly all of my honey at home for 18 cents; but it is a waste to sell 17, 18 or 20 ounces for a pound, so I am thinking of using the narrow sections.

Experience in 1888.—Thos. O. Hines, Anamosa, Iowa, on Feb. 23, 1889, writes:

My experience with bees in the winter and summer of 1888 has a dark and bright side. In the spring I took from their winter quarters 21 colonies, strong in numbers, but short in stores, so I had to feed. The spring being rough and cold, they dwindled away until I had 4 colonies left. I felt very much discouraged, but not enough so as to give up the business, and as my bees were blacks, I thought it a good time to change to Italians. I sent for 4 pounds of bees and 4 tested queens to start with, which I received on May 12, when it was so cold that I had to transfer them in the house. There were but few days that bees could fly until May 20, and everything in the business looked dark; but the honey-flow came, and that with a rush, and found me with my "hat" wrong side-up to catch it—I had no bees! But now comes the bright side: The flow continued without cessation until Oct. 20, when my 4 pounds of bees had increased to 10 colonies, with stores sufficient for winter. I also got 300 pounds of comb honey in sections. My bees, from all appearances, are wintering well, and everything indicates a good time for the honey-producer in this section of country the coming season.

Bees Look Fat and Clean.—Geo. H. Kirkpatrick, New Paris, Ohio, on Feb. 25, 1889, writes:

As to how the bees have wintered in the new cellar deserbed on page 89, I would say, that up to the present date I never saw bees winter better. To-day I examined each colony, and so far as I am able to judge, they are all in fine condition. They look as fat and clean as they do in June during a white clover honey-flow. The temperature I have kept from the time I put them in, from 42° to 44° up to Feb. 1, and since then, from 40° to 42°. At present I have no fears but what I will put each colony out alive in the spring, that I put in on Nov. 25, 1888. So far my neighbors' bees have wintered well, with the exceptions of a few who were so very cruel as to let their bees starve.

Hive-Spaces.—A correspondent at Dutton, Mich., on Feb. 16, 1889, asks the following:

1. Will Dr. Tinker please inform me through the AMERICAN BEE JOURNAL, what is the proper thickness of the wood-zinc honey-board? 2. How much room shall I leave between the brood-frames and the extracting-frames. 3. Is it desirable to make the extracting-frames the same size as the brood-frames? 4. Is it proper to hang the extracting frames crosswise of the brood-frames? X. Y. Z.

Dr. Tinker's answers to the above questions are as follows:

1. The slats I use in my honey-boards are three-sixteenths of an inch thick, and plump ⅞ of an inch wide. The saw-kerf in the edges is made with a No. 24 gauge saw, that is made

heavier at the center than at the rim, to make it run steady. With this thin saw there is so little waste of the wood in the edges of the slats, that if the slats at the sides are let into a rabbet in the side pieces of the frame and nailed, there is no need of a tin strip across the center to stiffen the slats. The frame is a full ½ inch thick.

2. Three-eighths of an inch.

3. Yes; and I prefer to have the extracting super made exactly the same as the brood-chamber, so that they may be used for the one purpose or the other, as may be desired. The bee-space is preferred at the top of the frames, and the entrance of the hive should be made in the bottom-board.

4. Yes; but if the brood-chamber and extracting super are made alike, and the frames are all the same size, it is preferable to storify the supers so that all the frames will be parallel.

Creating a Honey Market.—J. W. Collins, Clarksville, Mo., on Feb. 22, 1889, says:

I now have 58 colonies, 40 of my own and 18 on shares. I want to try and create a honey market at home. My bees are wintering well on the summer stands. They had a flight yesterday, but are housed to-day, as it is cold.

Bees are Very Quiet.—Joseph Beath, Corning, Iowa, on Feb. 20, says:

On March 15, 1888, I took out my bees and gave them a flight, having 40 colonies. I then put them back into the cellar again until April 13, and found 4 dead, 3 of which were killed by mice, and 2 died afterward, leaving me 34 colonies, from which I got 1,730 pounds of extracted honey. I put 34 colonies into the cellar on Dec. 10, 1888, and they have been very still so far.

White Clover all Right.—Mr. Christian Schrier, Peotone, Ills., on Feb. 23, 1889, writes:

The ground has been so dry all winter that the clover has not heaved out yet, but next month can do it. My bees looked well last spring, and I hoped for a big yield of honey, but the white clover failed. I have three acres of alfalfa clover, and I never saw my bees on it. The bees worked on the Alsike clover well, but the Alsike being mixed with the timothy, I cut it for hay while in bloom. I made my increase by dividing, and bought the queens. By Aug. 1, the hives were full of bees, but no honey. I had five acres of buckwheat, and when it began to bloom, the hungry bees worked on it in the morning while wet with dew, and in the evening; so they soon filled their hives with honey, and had some surplus, which I sold at 18 cents a pound, keeping enough for family use. The bees are in the cellar, and are doing well, there being very few dead ones. I raised each hive an inch from its bottom-board.

Wintering in Chaff-Hives.—I. C. Horton, Muskegon, Mich., on Feb. 23, 1889, says:

I have 77 colonies of bees on the summer stands, in the Hilton Improved chaff-hives. They are in splendid condition.

Bait for Bees.—Mr. Jos. Dowell, Hicksville, O., on Feb. 25, 1889, says:

I would say in regard to Mr. Becker's question on page 108, that if he will put one or two drops of the oil of sweet anise in his bee-bait, when he goes to Lake Huron, I think that the bees will come back again.

Good Fall Honey-Flow.—H. S. Bowman, Maquoketa, Iowa, on Feb. 26, 1889, says:

Last season was hard on bees, and bee-keepers in this locality, especially in the spring, and what has always been our harvest; but the fall flowers came to the rescue, and sent the bees into the cellar well supplied with the nicest fall honey I ever saw.

Gathering Honey.—Wm. Richter, San Bernardino, Calif., on Feb. 16, 1889, says:

After having had very dry weather with plenty of wind and sand storms, rain set in to-day, so our prospects for a honey crop are good. Bees gathered a little honey from white thornbush and alfillaree. Dark sage will be in blossom in about three weeks.

Sub-Earth Ventilation, etc.—N. N. Betsinger, Marcellus, N. Y., on Feb. 19, 1889, writes:

If I am not mistaken, two years ago Mr. P. H. Elwood said at the New York convention that his cellar ventilators to admit cold air were entirely closed during the cold weather. If this is so, I would like to know of what use (aside from drainage) that immense sewer pipe is. On page 99 he seems to have changed his views. How can he harmonize this with the denunciation given two years ago on "scientific ventilation?" He then stated that 50 colonies of bees, in repositories, did not require any more air than one person!

Dr. Mason is to be congratulated on his article on basswood honey on page 103. In order to better inform our Canadian cousins, let me say that we have one supply dealer in New York State who cuts enough sections every season to hold more than all the honey produced in the Dominion of Canada. That supply dealer is only one of the many, but he is the largest in our State.

Bees Wintering Nicely.—A. F. Wheeler, Rossville, Iowa, on Feb. 21, 1889, writes:

I commenced the season of 1888 with 13 colonies, increased them to 31, by natural swarming, and 7 or 8 swarms went to the woods. I took 1,000 lbs. of surplus honey in one-pound sections, about half of which was white clover, the balance being light amber. I lost 2 colonies by the worms, or by my neglect of them in the harvest. I put 29 colonies into winter quarters, 25 packed in chaff, and 4 in the cellar. They seem to be wintering nicely, the thermometer registering from 41° to 45° in the cellar. The coldest that it has been out-of-doors is 12° below zero. Ten cents per pound in trade is all that I can get for honey at the grocery store, and I wont take it; 12½ cents is the least that I have sold any for.

Good Results in 1888.—John N. Eubank, Slater, Mo., on Feb. 23, 1889, writes:

I commenced the season of 1888 with 22 colonies, which I increased to 35, by natural swarming. I obtained about 1,900 pounds of honey, principally white clover, and about 400 pounds from red clover. My bees worked on red clover more the past season than they ever did before; but I do not like the honey, as it is dark, and stronger than fall honey. Considering the season, I think that my bees did well. Bees have wintered well in this locality so far. To-day was the coldest of the season—7° below zero. My bees are wintering on the summer stands, have had good flights every few days this winter, and appear to be in a healthy condition. My bees made the best record of any in this locality the past season, as I obtained over 85 pounds of surplus per colony, spring count.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

Simmins' Non-Swarming System, and the AMERICAN BEE JOURNAL for one year, for $1.25. The subscription to the BEE JOURNAL may begin anew at any time.

We Supply Chapman Honey-Plant **SEED** at the following prices: One ounce, 40 cents; 4 ounces, $1; ¼ pound, $1.75; 1 pound, $3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of of any other papers. Send for such to the publishers of the papers you want.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

Honey and Beeswax Market.

SAN FRANCISCO.

HONEY.—White comb, 10@11½c.; dark, 6½@8c. White extracted, 6½c.; light amber, 5¾@6c.; dark amber, 4½@5½c.
BEESWAX.—18@22c.
Jan. 25. O. B. SMITH & CO., 428 Front St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 18@19c.; best 2-lbs., 16@17c. Sales quite brisk, and market nearly cleaned up of all undesirable honey.
Feb. 28. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 16@17c. Sales slow. Extracted, 9@10c.
BEESWAX.—22@23c.
Feb. 11. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 18@17c.; 2-lbs., 14@15c. Good dark 1-lbs., 13@14c.; 2-lbs., 12@13c. Buckwheat 1-lbs., 13@14c.; 2-lbs., 11@11½c.—Extracted, 6½@8¼c., depending upon quality and style of package. Market dull and stock sells slowly.
BEESWAX.—22c.
Jan. 24. S. T. FISH & CO., 189 S. Water St.

ST. LOUIS.

HONEY.—Choice white clover comb, 13@15c.; fair 11@12c.; dark, 8@10c. Extracted, dark, in barrels, 5@5½c.; choice, 5½@6c.; in cans, 6@7½c. Market is quiet but steady.
BEESWAX.—20c. for prime.
Jan. 17. D. G. TUTT & CO., Commercial St.

CHICAGO.

HONEY.—Best 1-lbs., 17@18c. Extracted, 7@9c. for best quality, according to body, flavor and style of package. Trade is limited to local consumption. Off grades of comb honey are slow at lower figures than given above. But few will buy dark comb.
BEESWAX.—22c. R. A. BURNETT,
Jan. 17. 161 South Water St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 15@16c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c.; fair 1-lbs., 12@14c. Extracted, white, in kegs and ½-barrels, 8½@9c.; amber in same, 7½@8c.; in pails and tin, white, 9½@10c.; in barrels and ½-barrels, dark, 5½@6c. Market dull. The very best sells slowly, and inferior qualities are neglected very much. Damaged, broken and leaky comb honey not wanted.
BEESWAX.—22@23c.
Jan. 10. A. V. BISHOP, 142 W. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@16c. Demand is only moderate. No overstocking of the market.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Feb. 21. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—White 1-lbs., 16c.; fall, 14c.; California 1-lbs. 16c.; white 2-lbs., 14c.; extra 2-lbs., 13c. Extracted, white California, 8c.; amber, 7c. Market dull.
BEESWAX.—20@22c.
Jan. 22. CLEMONS, CLOON & CO., cor 4th & Walnut

KANSAS CITY.

HONEY.—Choice 1-pounds, 15@16c.; dark 1-lbs. 12c.; 2-lbs., 14c.; dark, 11c. White extracted in 60-lb. cans, 8c.; amber, 7c.; in barrels and kegs, 5@8c. Demand good, prices steady, and stock large.
BEESWAX.—None in market.
Jan. 4. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—White, in 1-lb. sections, 15@16c. Extracted, 9@10c.
BEESWAX.—20c.
Jan. 1. J. M. CLARK & CO., 1409 Fifteenth St.

NEW YORK.

HONEY.—We quote: Fancy white 1-lbs., 14@15c.; 2-lbs., 12c Fair white 1-lbs., 14@15c.; 2-lbs., 10 to 11c. Buckwheat 1-lbs, 10@11c.; 2-lbs., 9@10c. Extracted, white, 7½@8c.; dark buckwheat, 6@6½c. which is in good demand. Market dull, except for extracted buckwheat; for all other kinds it is quiet, owing to unseasonable weather, we believe.
HILDRETH BROS. & SEGELKEN,
Jan. 10. 28 & 30 W. Broadway, near Duane St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½ cents; amber, 6c. Comb, white 1-lbs., 13@14c.; 2-lbs., 13c.; amber, 10@11c. Demand is of a jobbing nature, and arrivals are small.
BEESWAX.—19@20c.
SCHACHT, LEMCKE & STEINER,
Jan. 8. 16 & 18 Drumm St.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

Advertisements.

WANTED—To Exchange for **BEES**, a Fine Field-Trained Setter **DOG**. Bargain given.—Also, $100 to $200 worth of Bees, Queens, Empty Combs, Sections, PURE Japanese Buckwheat, etc. Who makes the best offer? **C. F. LANE,**
10A1t LEXINGTON, LaFayette Co., MO.

ITALIAN BEES, QUEENS, and EGGS from Light Brahma and Wyandotte Poultry One Untested Queen, $1; three for $2. Eggs, $2 for 13. Price-List Free.
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Mention the American Bee Journal.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. March 16, 1889. No. 11.

EDITORIAL BUZZINGS.

A little bit of patience
Often makes the sunshine come,
And a little bit of love
Makes a very happy home;
A little bit of hope
Makes a rainy day look gay,
And a little bit of charity
Makes glad a weary day.

The Weather in England during February is described as "boisterous," with high winds, fitful storms, rain, hail and snow. The honey season of 1888 was a very disastrous one in England, as well as in America. We are all hoping for a better season during the present year.

Lexington, Ky.—Last week we received an article for the BEE JOURNAL bearing the Lexington, Ky., postmark, but having no name of the writer. If the person who sent it will send us his name, the article will appear in print—otherwise it will have to go into the waste basket.

The Apiculturist for February is just received (our regular copy having been lost in the mail and this is re-sent to fill its place), and our thanks are due to brother Henry Alley for his very kind remarks, "eudorsing" the "note" added to our biographical sketch by Brother Root in *Gleanings* for January. "Kind words can never die." It is a solid pleasure to notice the very friendly feeling now existing among apicultural editors. May it ever continue. Differ we must; to discuss many points of these differences is necessary, but when a kind feeling underlies the discussion, only good will result from it.

More Humbug.—C. M. Burgess, of Council Bluffs, Iowa, on Feb. 23, 1889, wrote us as follows:

MR. EDITOR:—The enclosed was clipped from the Council Bluffs weekly *Nonpareil* of Feb. 14, 1889. Do you think there is anything in it? I think all bee-keepers rely upon you to explain, and also to expose all frauds, and bring the offending parties to justice and repentance. The AMERICAN BEE JOURNAL is a very welcome visitor.

The clipping which Mr. Burgess sent originated with the Davenport, Iowa, *Democrat*, and reads as follows:

A NEW SWINDLE.—A new swindle is said to have been discovered at Oskaloosa, by a woman coming in a drug store and buying a half ounce of "attar of roses"—a butyraceous oil of delicious fragrance, which separates itself from the rose-water during the distillation of dried petals of roses.

A reporter heard this order, and his curiosity became strong as to why she should want so much of this expensive oil—retailing at from $10 to $15 an ounce. After much investigation he found that she used it in the manufacture of "pure" honey.

Syrup made of the proper consistency and color—an easy undertaking—with enough of this oil added to give it flavor, an article in all appearance, smell and taste, so closely representing honey as to fool the most expert; and thus at a cost not to exceed 3 or 4 cents per pound to the manufacturer, this bogus honey is sold in this market as straight, pure strained honey.

Bro. Burgess asks us, "Do you think there is anything in it?" No, there is nothing in it but *falsehood!* It is another of those sensational stories "gotten up for spice" by a reporter for the daily press.

In one particular it is like the Wiley *lie*, written for the *pay* which the daily press gives for sensational stories, and if the writer is cornered, he will claim that he wrote it as a "pleasantry," never expecting that any one would be foolish enough to think there was a word of truth in it!!

This time they want to bring our sisters into the mess, by saying that it was a woman who bought the "attar of roses" to fool the community with. No, sir: no woman did it. She knows more than that, and has more good, sound sense than to try to do anything of the kind! She knows that the addition of "attar of roses" to "syrup" would not "make honey" that will "fool" any one—much less an expert!

The idea of paying $10 to $15 an ounce for "attar of roses" to put into "syrup," and then say that the cost of the conglomeration is only "3 or 4 cents per pound!" Such a thing is ridiculous!

To say that "this bogus honey is sold in this market as straight, pure, strained honey," is an insult to common sense.

We call upon the Davenport *Democrat*, and all who have copied the item to retract it—and save themselves from being the laughing-stock of the age!

A Directory, containing the names and addresses of those interested in apiculture is being gotten up by Mr. Henry Alley, of Wenham, Mass. It will cost $1.25. As soon as it is published we will give a further description of it.

Another Swindler.—A fellow by the name of Lincoln, whose address is given at "89 Aberdeen Street, Chicago" (but who cannot be found at that place), is offering recipes for "artificial honey," which he avers can be made for "8 cents per pound," and can readily be sold at "from 25 to 35 cents per pound," and is "equal to bees' honey," being often "mistaken by the best judges to be genuine!!"

Accidentally we ran across one of the dupes of this man Lincoln, who had honey recipes for sale. We denounced him and his recipes as *frauds*; the fellow was scared and "lit out" as rapidly as possible.

Think of the idea of being able to sell "artificial honey" at from 25 to 35 cents per pound, when the real article of the most delicious kind can be bought from ⅓ to ½ of that price! The fellow, Lincoln, is more of a knave than a fool. He not only tries to swindle the buyers of the "artificial" humbug, but also swindles the agents who buy his recipes by holding up fabulous prices and sales as an inducement for them to engage in the nefarious business!

Echoes is the name of another home-made periodical of 20 pages, published by Will M. Young, of Nevada, O. Both the price and frequency of issue seem to be an enigma at present with the editor. He says:

We would like to issue monthly, but cannot say in this number how often—probably quarterly for 1889—and *one* issue per year may exhaust us completely, and disgust our friends.

The first issue shows considerable tact and some ability in the editor. The quality of the paper is good, but the printing is inferior. Five columns are devoted to bees and their management. The editor has 60 colonies, and had an average of 43 pounds of surplus to the colony, last season. We have read the first issue with considerable interest.

Mr. A. I. Root was so well pleased with his trip to California, that he is still giving very interesting accounts of it in *Gleanings*. More than that, he has planned another trip to the Pacific slope, and intends to stay longer, and see more of that wonderful country, and its wide-awake and jolly bee-keepers. He intends to take Mrs. Root with him next time. We almost envy him the pleasure. When we went to Europe ten years ago, he remained at home hard at work—now the tables are turned, and it is our turn to stay at home and work.

When Systematic and harmonious energies are put forth in defense of any pursuit, such efforts cannot fail to win. When the editors of the bee-periodicals all lay aside every trace of selfishness or party-spirit, and work solidly for the prosperity of the pursuit, it not only shows a pleasing prospect, but it also assures its ultimate success.

GLEAMS OF NEWS.

The Anatomy and Physiology of Bees was the subject of a lecture recently delivered by Mr. John Aspinwall, at the Cooper Institute, New York. The lecture was illustrated by stereopticon views. The New York *Times* gives this amusing account of it:

While in its physical make-up the bee is in many respects the opposite of man in its habits and tricks, yet it very much resembles the lord of creation, and were bees to be transformed into men, some would undoubtedly go into the police force, or in the board of aldermen, while there would not be a few successors to Jake Sharp, and to the inexperienced young toughs who get clubbed by the police, and are then sent up to the penitentiary for dishonesty and general "sass." The occupations of walking delegate and dude mashers are also found in apiarian society.

The little bee, that is, the worker, is a horny-skinned child of toil. It is incased in rings and shields of smooth horn to shield it against attacks of its own species, and it toils as long as there is light. It has not got backbone like a man or a mule, but instead it has a little sting that serves its purpose just as well, and thus manages to maintain its rights. Between its tongue and sting there is a complicated mechanism that is of great use to the farmer and to nature. Aside from the honey that it distils, and which is worth thousands of dollars annually to the farmer and to commerce, its habit of poking its head into flowers and covering it with pollen, which it brushes off into other flowers, renders it a benefactor to nature in fertilizing flowers.

Before the advent of the bee in Australia, it was impossible to get any seeds of red clover there. Of course its process of storing honey might not suit the most fastidious taste, but honey is partially digested cane-sugar, made so by the aid of bee saliva, but as the bee is a perfectly clean little animal that revels in nectar all day long, these little irregularities must be overlooked. Besides, it uses a different mouth for the honey.

The bee is a good flyer, but as its wings are smaller in proportion to its body than are those of the eagle to the king of birds, it has to flap them more frequently, so it flaps away at the rate of 446 flaps to the minute. It has no lungs, but a system of tiny air-tubes extend through all parts of the body, and these it packs with air when it wants to fly. Neither has it a heart, but a dorsal vessel that pumps the blood to the head. The head, as magnified on the screen, is not a beautiful object, and as it is not the center of the nervous system, it would not miss it very much if cut off, if it were not for the eyes, two of which have 4,000 lenses each to see the honey-flowers afar off, and two others to assist in doing the microscopical work in the hive.

The entrances to the hive are very carefully guarded by sentinels, and every bee on arriving at the door is challenged by them with their antennæ. If it can give the countersign it is admitted to the sanctuary, but if it cannot, it is in danger, for bees are very nervous insects, and draw stings on the slightest provocation. The applicant must be a thief, and old thieves are detected by experienced sentinels, but the form of challenging must be gone through first. The old thief-bee is fat, sleek, shining and very suave. If caught by sentinels it will at once try to make a deal and offer the policemen some sugar, and while they are eating, it either slips in and fills up at the cells, or it retreats and tries another hive. If the sentinels are incorruptible, the thief humps itself, then draws its horny shields tight around it so that the stings of the policemen may not penetrate, and runs. A young thief stands up to fight, and gets clubbed. It learns by experience.

The queen-bee has not such a very easy time. She has plenty to eat and eats it, and flies very little; but as she has to lay all the eggs of the colony, and often lays more than her weight of eggs in one day, the bees begrudge her nothing, but let her have her own way everywhere.

The drone is the dude and walking delegate of the hive. He is not very numerous, however. He is fat, and spends his time eating honey, flirting with the girls and the queen, and then takes a quiet nap in the sun. When his charms no longer please he is driven out, and if he cannot get a berth in another hive, he starves. The little worker, however, according to the lecturer, does not fare much better. She lives for about six weeks, when she becomes feeble, her wings get torn and fringed, and she lies down to die in the field, refusing to return to the hive and become a burden to the colony.

Paper has been used for so many things that we are not surprised at any suggestions in that line now. We have bee-hives, railroad car wheels, and a score of such things made of paper, but we draw the line at organ pipes, that is not only humorous but musical. An exchange is responsible for the following item on the subject:

A novel application of paper pulp has recently been discovered, and consists in the production of organ pipes from that material. The origin of the industry is somewhat curious. Crespi Rigtuzzo, the curate of a little Italian village, was desirous of supplying his chapel with an organ, but as the commune was too poor to find the necessary fund, he and an engineer of the name of Colombon hit upon the idea of making the pipes of paper pulp, which gave such satisfactory results that the patent has been sold in Germany for £2,500.

Pruning Fruit Trees.—We occasionally meet with persons who think that trees, in order to bear properly, should be pruned every spring. Similar persons think they cannot start the year aright without a dose of spring physic of some kind. The trees may need pruning, but, at this season or at any other, one rule should be observed. No branches, large or small, should ever be cut away without a reason for it. One should be able to say to himself, why will it be better for the tree to remove a certain branch than to let it remain? If this rule were observed, there would be much less pruning than at present.—*American Agriculturist for March.*

Convention Notices.

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at the Court House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.
H. M. SEELEY, *Sec.*

☞ The DesMoines County, Iowa, Bee-Keepers' Association will hold its annual convention in the Court House at Burlington, on April 23, 1889, at 10 a. m. All bee-keepers are invited. JOHN NAU, *Sec.*

☞ The 11th annual session of the Texas State Bee-Keepers' Association will be held in the apiary of W. R. Graham, of Greenville, Hunt Co., Tex., on May 1 and 2, 1889. All bee-keepers are invited. The last meeting was held here last May, and was the best ever held. So we look forward to a good time next May. A cordial welcome and hospitality will be tendered to all who come. G. A. WILSON, *Sec.*

Pat Buys a Bee-Smoker, (he has heard somewhere that a smoker is necessary to subdue the bees; he gets one, and is examining it). Shure, and it's an illigant poipe ye'll make entoirely, and wid sich a foine large hole ye have to dhraw wid, and a lovely bit of wood to hould by—but, whisha! where does the terbaccy go? (Turns it over, and at last pulls off the end). Bedad! it's a terbaccy jar ye are wid hould enough for a wake and niver a poipe at all, but I'll thry ye. (Puts in all he has, lights up, and sucks contentedly with the nozzle in his mouth.) Arrah! ye little stinging bastes it's me revenge I'll be taking av yer, for whin ye made me face like a pertatie, and the praste himself didn't know me. (Squeezes the bellows accidentally, and gets a good puff or two internally.) Augh, augh, it's—augh—bad luck to ye for stame injin, ye've clane kilt me entoirely. (Is about to give up in despair when the local expert arrives.)—*Honey-Suckle in the British Bee Journal.*

Good Prospects.—A few weeks ago we asked for reports as soon as it could be determined as to the condition of white clover in the various localities—some having reported that it had been damaged by the freezing and thawing, being uncovered with snow. Mr. C. H. Dibbern, of Milan, Ills., on the 7th inst., makes this report on the subject:

I have carefully examined the white clover in this vicinity, since the ground has thawed out, and find it in excellent condition. I have also taken out 25 colonies of bees from the cellar, and they are all right, too, being exceptionally bright and healthy. I do not think that our winter losses will be over 2 per cent. With improved hives, a better system of management, safe wintering, and an assured honey yield, I consider the prospects very good.

Mind and its Mysteries.—It would be very nice if we could put a mind under a bell-glass as we do a bee-hive, and watch the coming and going of fancies, and the laying up of thoughts—sweet fancies gathered from flowers of fact in memory's cells. —*Rev. James Hamilton, D. D.*

Catalogues for 1889 are on our desk from—

Thos. G. Newman & Son, Chicago, Ills.—36 pages—Bee-Keepers' Supplies.

H. E. & E. L. Pratt, Marlboro, Mass.—16 pages—Bees, Queens, and Apiarian Supplies.

Dr. G. L. Tinker, New Philadelphia, O.—20 pages—Syrio-Albino Queens and Bees and Apiarian Supplies.

H. H. Flick, Lavansville, Pa.—4 pages—Poultry and Turkeys.

Christian Weckesser, Marshallville, O.—8 pages—Seeds, Plants, Potatoes, Bees, etc.

H. P. Langdon, East Constable, N. Y.—4 pages—Bees and Queens.

J. M. Hicks & Co., Indianapolis, Ind.—1 page—Bees and Apiarian Supplies.

Charles A. Green, Rochester, N. Y.—50 pages—Nursery Stock.

QUERIES AND REPLIES.

Amount of Drone-Comb for a Single Colony.

Written for the American Bee Journal

Query 618.—How much drone-comb should there be in each hive to place its colony in a normal and thrifty condition?—S. G.

There need not be any.—A. B. MASON.

Not over 3 square inches.—WILL M. BARNUM.

As little as possible is enough.—R. L. TAYLOR.

Six inches square, in the aggregate.—MRS. L. HARRISON.

Three or four inches square would be plenty.—J. P. H. BROWN.

The bees will take care of that.—H. D. CUTTING.

None, unless you wish drones from that colony; then very little goes a long way.—A. J. COOK.

I would not put any in. The bees will get in a little in spite of you.—C. C. MILLER.

The least you can get built. The bees will look after that, if you try to have none.—EUGENE SECOR.

There will always be sufficient to meet Nature's requirements. How to prevent *too much*, is a wiser consideration.—J. M. HAMBAUGH.

From 2 to 6 square inches, or just enough so that the bees will not cut down worker-comb to build drone-comb.—G. M. DOOLITTLE.

My *design* is to have none, and with this design in plain sight all the time, I have more than I want. A queen-breeder will properly have a different view.—J. M. SHUCK.

None are needed, except for queen impregnation. Two full sheets of drone-comb in a good colony, in an apiary of any size, are sufficient for the entire apiary.—DADANT & SON.

Very little; in fact I do everything possible to prevent them having any at all. It is better policy to select one or two colonies of extra nice bees, and give them a frame of drone-comb for the purpose of supplying drones for the apiary.—C. H. DIBBERN.

I never put in any (except in a few choice colonies for having drones to rear queens), as the bees will always fix some places in the combs for the queen to lay drone eggs.—P. L. VIALLON.

Now here comes a question about which I differ from the "books." My experiments with colonies on *perfect all-worker combs*, has led me to the conclusion that the presence of drones is not essential to normality in a colony of bees, when speaking of colonies as individuals. The whirring noise of the drones' wings in the throng of busy workers is as assuring to the colony that has no drones, as it is to those that have them. Neither does the absence or presence of drones affect the swarming fever, in my judgment. Notwithstanding, I prefer to give all my best colonies some drone-comb.—G. W. DEMAREE.

A long discussion could arise regarding the word "normal." I have had strong, thrifty colonies which gave an immense amount of surplus honey, that had not a drone-cell, nor a drone in the hive, the whole season through.—JAMES HEDDON.

That will depend upon the age of the queen and the conditions of the colony. When I know just what the word "normal" means, I may be able to answer; but different minds give a different meaning to it, so that it is impossible to decide just what the word means, unless more is stated.—J. E. POND.

Normal and thrifty conditions may not go together. A colony may be more thrifty when it is not normal, than when it is. A colony is normal when it has the amount of drone-comb which it would build if left to itself; but it will be more thrifty if it has only a few square inches of it.—M. MAHIN.

Permit just as little drone-comb as possible, and then you will have "an abundance." If you want drones from that special colony, you might permit more drone-comb than usual.—THE EDITOR.

Rearing Drones when Supplied with Worker Foundation.

Written for the American Bee Journal

Query 619.—Will bees rear drones in a hive supplied with full sheets of worker foundation?—G. G.

Yes.—H. D. CUTTING.

Yes.—J. P. H. BROWN.

Occasionally.—WILL M. BARNUM.

Yes, a few.—R. L. TAYLOR.

Yes, but very few.—C. C. MILLER.

Yes, to a limited extent.—J. M. HAMBAUGH.

They will rear all they need.—EUGENE SECOR.

Occasionally very little; usually not at all.—A. J. COOK.

Yes. They will make places for a few.—M. MAHIN.

Yes. Bees will have some drone-comb anyway, according to my experience.—G. M. DOOLITTLE.

If you mean the lower hive, they will rear a few, if you allow them to swarm naturally.—MRS. L. HARRISON.

Yes, they will be almost certain to find some place where they will rear some. If no better place offers, a few drones will be reared by lengthening out worker-cells.—C. H. DIBBERN.

Certainly not, unless, as is sometimes the case, they build a few drone-cells upon worker foundation.—JAMES HEDDON.

Yes. They will enlarge the worker-cells in the lower corners of the comb, sometimes only on one side of it; and they will frequently enlarge cells in different parts of the comb.—A. B. MASON.

Yes; there are always some places where they will, and if there are none, they will make some. Foundation limits the drones, but does not entirely prevent them.—P. L. VIALLON.

There are always a few corners or some places where the foundation stretches a little, where drones will be reared; but the extensive and unprofitable production of drones will be prevented.—DADANT & SON.

Yes, more than are wanted. Foundation does not prevent drone-rearing, but curtails it—keeps it within bounds. There are spaces often in the edges of the combs, also in the bee-space around the frames, where they may be built. I have seen the central space in sectional hives entirely filled with them.—J. M. SHUCK.

Yes, most certainly. You cannot prevent Nature from carrying out her own operations. Not as many drones will be reared, to be sure, but those that are reared in worker-cells, will be dwarfed in size. To prevent excess, I use young queens, and a small amount of drone-comb.—J. E. POND.

If the combs are not perfect, and do not fill the frames perfectly, a few drone-cells will be fashioned by the workers, and a few drones will be reared. But with good sets of all-worker combs drawn from foundation, I work many colonies that are positively without drones at all times.—G. W. DEMAREE.

Yes; the dictates of Nature will be obeyed. The bees will enlarge cells at the corners to accommodate the rearing of a few drones.—THE EDITOR.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble, and at the same time help to scatter apicultural knowledge and promote the welfare of our pursuit.

CORRESPONDENCE.

FOUL BROOD.

Spring Care of Bees—How to Distinguish Foul Brood.

Written for the American Bee Journal
BY RANDOLPH GRADEN.

As the winter has been very mild and pleasant for bees, so far they have wintered well; but as the most trying time is yet to come, it is necessary to see that they have plenty of stores, for if the warm weather should continue through February, the bees will start breeding early, and consume considerable honey.

As March and April are very trying months for bees, too much care can hardly be given them, so that the brood does not get chilled. Colonies that are expected to be short of stores, or are weak in appearance, should, when the weather is warm enough to admit of so doing, be examined, and the brood-chamber contracted to suit the size of the colony, and, if short of stores, they should be fed.

Colonies that are not doing as well as they ought, or are not doing as well as those around them, should be examined to see if they have a queen, and if not, a queen should be given them, or a frame of eggs and brood, so they can rear their own queen. They ought also to be examined to see if they are affected with the disease called "foul brood" (or bacillus alvei), as we hear that there is a great deal of that disease in the country.

Appearance of Foul Brood.

In its first stages, the larvæ when attacked begin to move unnaturally, and instead of being curled around on the bottom of the cells, they sometimes turn in such a way as to present their dorsal to the eye of the observer, and it may then be noticed that the color of the larvæ is somewhat yellowish instead of being pearly white. Larvæ thus affected seldom are sealed over, but such grubs as are further advanced in growth before the disease strikes them, are in due time sealed, but as they die, their bodies turn brown and become a putrid mass, the cell sealing sinks, and a small, irregular hole may be seen in the capping. The bees may also be seen very energetically fanning at the entrance of the hive, and in advanced cases an indescribable odor may be observed; and if the cappings of the diseased cells are removed, a very brown, coffee-colored mass will be seen at the bottom of the cell, which is so tenacious that if a head of a pin is inserted into the mass, it may be drawn out, a thread-like and ropy substance. The foregoing are the general indications of the disease.

Propagation of Foul Brood.

Foul brood is a very contagious disease, and if started, and not properly treated, so as to check its progress, it will rapidly spread from cell to cell, and from colony to colony.

As to the propagation of this disease, the conclusions are varied, and as yet not fully understood; but many of our leading apiarists have the idea that the bees, while robbing the depopulated colonies, carry the bacilli or spores on their bodies, or in the honey from apiary to apiary, and from hive to hive. Some go even so far as to think that if a bee visits a flower that has been previously visited by a bee from a diseased colony, the spores of the disease can be picked up in that way, and carried to the hive. I do not think that this is quite correct, and my reasons are these:

About three years ago I noticed a colony that was in advanced stages of the disease, that was being robbed, and upon investigation, I found that the robber bees were located less than half a mile away, and the robbing had been going on for some time, as quite a line of bees were going to and from the hive, and most of the honey from the outside frames had been carried away by the robbers; yet, strange as it may be, no disease has appeared. This shows that the honey contained no spores; also that the bees, by flying less than half a mile, carried no spores to affect the colonies that contained the robber bees. Still, when the disease is once started in an apiary, it spreads very rapidly.

Now if the honey contains no spores, the question would arise, how is the disease propagated? Would it not be reasonable to suppose that it is carried from hive to hive through the air, as an indescribable and nauseating odor is emitted from the hives where the disease is somewhat advanced? What is odor, no more nor less than very minute parcels from the substance from which it arises? and in these progressive times in bee-culture, when bees are sold by the pound, and bees and queens are shipped and sent through the mails from State to State, and from country to country, the disease may also in this way be carried from one country to the other.

It may, after being once started, if not properly treated, become hereditary; as one of our Professors has said, that a queen reared in a foul-broody colony would not live over one year, which I know is not always correct, from the fact that I have seen a queen that was reared in a very foul-broody colony, that lived a part of three years, and lived through two winters; yet if not always treated in the brood-rearing season, her progeny would be affected, and foul brood again appear. This colony was examined in the latter part of August in the third summer of her life, and the brood was all apparently in a healthy condition, yet after leaving them without treatment for 21 days, upon examining the colony, it was again found to be affected with the disease, and upon giving them a heavy dose of the treatment in the forenoon, they swarmed out and left the apiary, going in a southerly direction. This shows that it would be very dangerous to procure a queen that had been reared in a foul-broody colony.

I think that I have shown some very good reasons, as to how bacillus alvei get into a colony. It is also quite certain that very many bees of a colony may be diseased for weeks and even months with this bacillus, and yet foul brood may not be seen, as bees clear out infected grubs so that the infection may not be seen, and yet exist. As to the method of treatment, it is varied, as some use salicylic acid, and others use phenol (carbolic acid); also camphor, powdered coffee, dairy salt, and a preparation of salicylic acid, bi-carbonate of soda, dairy salt, and soft water; also thyme, sulphuric acid, etc., and the "starvation plan." It is evident that the disease yields very readily when properly treated.

Taylor Centre, Mich.

SWARMING.

A Woman's Experience in Keeping Bees.

Written for the American Bee Journal
BY MRS. MARTHA ANDERSON.

We have had a mild winter, and my bees, I think, are wintering nicely. Last summer we had a very strange season. My bees commenced swarming on May 16, and kept it up until Aug. 21. They stored no honey the forepart of the season at all, but I suppose they must have gathered enough to stimulate the queen, and to feed the young bees. I do not think I ever saw bees multiply like mine did all through the season. The frames were full of brood in different stages of development, and I kept close watch of my bees, so as not to lose any swarms, until in July, when I thought they had swarmed all they were going to, and as there was no honey for them to get, I found out that they had been swarming all the time, and my neighbors had been getting them. I knew that they

were mine, for I have the only Italian bees in the neighborhood.

After I found that they had taken another "round" of swarming, I began examining them, and took out as many as 12 queen-cells to the hive. From Aug. 15 to the 20th, I examined all of my colonies, wanting to know how many I would have to feed. There was only a few but what had just about a spoonful of honey to the hive, and I thought it would be quite an undertaking to feed 32 colonies that were so strong. I had 10 colonies in the spring of 1888, and they increased to 32 strong colonies.

The fall honey-flow commenced about Aug. 21, and I do not think that I ever saw bees work so hard as mine did. They filled the brood-chamber in a very short time; altogether they stored 650 pounds of nice comb honey in one-pound sections. The flow continued four weeks, or until the frost came. When one swarm issued on Aug. 5, I was entirely out of foundation for them to start on, and I did not get any, because I thought I would not need any more. I took a frame out of another hive, and put it in with a little syrup made of granulated sugar, and in two or three days the queen was laying, and they went to work making comb in which to store honey. That colony filled the brood-chamber and stored 16 pounds of surplus honey besides.

I put the bees into winter quarters in November, and the hives were all that two could lift. I have a long shed for them, open to the east, and packed them in straw. They are all doing nicely. There are not many dead bees to be seen as yet. I think that there will be danger of them dwindling in the spring, on account of the open winter we are having. I like the BEE JOURNAL very much.

Bushnell, Ills., Feb. 23, 1889.

THEORIES.

Theoretical Knowledge in the Art of Bee-Keeping.

Read at the Indiana Convention

BY G. K. HUBBARD.

The proper place for theory to end and practice to begin, before a person's knowledge shall be accepted by others without numerous reservations or exceptions, is a difficult matter to decide in the thousand-and-one questions that are constantly coming up in life; and of course in a pursuit like bee-keeping, where much thought and study are a necessary adjunct, the question comes with more than ordinary force.

As in every other controverted question, there is in this a "golden mean" to strike; and in the judgment of the writer, that person, who has reached the half-way point between the two extremes, is the successful apiarist.

I am inclined to the opinion that bee-keeping need not necessarily be carried on by specialists, with their hundreds of colonies, but that every farmer or tradesman who can take an interest in bees, should keep a few to supply honey for home use.

Among the great mass of bee-keepers, as we find them scattered over the country, there is far too little theoretical knowledge. This is shown by their ignorance of many of the facts concerning the habits and characteristics of bees, that the more intelligent apiarist is as familiar with as he is with the names of his near relatives. With such persons, a thorough study of the theory of bee-keeping will give them more confidence in themselves whenever they wish to vary from some old plan, or when a new difficulty presents itself.

In 1881, when I was quite young in the bee-business, a gentleman asked me to unite 2 colonies of bees for him. I told him I never had done the like, but knew how it was done (you see I had the theory), and a little later, when I had the 2 colonies in one hive, acting as much at home as though they had always been together, I had made a start in the "practical;" but the theory first learned from books, was as valuable as though the same knowledge had been acquired from experiments.

James Heddon has recently said: "I know pretty well who are the practical honey-producers in this country. One who has read and written for papers, and produced honey on a large scale for twenty years knows the difference immediately between a theoretical and practical writer. Such a one, when reading an article, no matter how eloquently and skillfully written, will at once and correctly determine whether the writer has an apiary in his brain, or in his back yard. I look with interest for articles from such men as R. L. Taylor and others I might mention, who ship their honey to market by the carloads."

Here is a good point. We accept information from people whom we know are well posted in apiculture theoretically, with much more certainty, if it is backed by large practice, and especially so if abundant success has crowned their methods of procedure. Let us not forget, however, that it is rarely that a person will succeed in anything by being a mere imitator. You may read a plainly written article on some subject, that takes in more than a brief operation, like the uniting illustration just used (say for example, "The production of comb honey," or "A season's procedure in queen-rearing"), and while we might all be pleased to get the writer's views, not one progressive, intelligent apiarist would do exactly as described.

Your own ideas and methods will creep into all that you do; and thus, unconsciously, you adopt a plan of your own, and with reasons, too, for your method. You see the theory of some one else, and your practice will not always work; but the theory varied to suit your own surroundings, and thus applied to your practices, will be found to harmonize very well. This implies intelligence and a qualification we may call "tact."

I mean by this, good judgment and adaptability; and I consider it perfectly fair to insert this qualification, because I believe that a person who has it not, would be more likely to fail in almost any business. And as bee-keeping is far from being an exception in this respect, it is only fair to assume that a reasonable degree of tact will be employed in reducing to practice the ideas suggested by others.

Keeping in mind the idea which this construction of the word "theoretical" implies, it will be seen that we can very properly be theoretical apiarists to quite an extent. But if you should narrow down the meaning of theoretical, so that it applies only to that species of speculation which never will receive a decisive answer, and from the nature of the case cannot be reduced to practical advantage in the apiary, then of course there can be but one answer to the question.

The bee-keeping fraternity cannot be benefited by people who "dream dreams and see visions." We wish to spend our time on that which will make us more successful from a dollar-and-cents stand-point; that which will enable us to more completely control our colonies as we wish; that which enables us to put a first-class article of honey on the market, with the least expenditure of labor; that which will enable a beginner to expect a reasonable degree of success when he puts in practice the information that he has gained from others. Such theoretical bee-keeping is at once theoretical and practical; and practical theories are of great value, because they carry with them satisfactorily explained reasons, and give the possessor that intelligence and perception that is at the extreme opposite of "luck."

In this busy, pushing world, it is the intelligent, active man who wins—the man who keeps posted, the man who is quick to perceive and apply valuable points in what he reads. A person who is well informed in current bee-

literature, is said to have the theory of the pursuit well learned; and I maintain that, as the pendulum swings between such theory and that other method of procedure—which is nothing more or less than driving ahead in ceaseless, wearisome labor in the apiary, with no thought for new developments, or the plans of others—that between these extremes the successful apiarist will be passed as the pendulum passes the golden mean between them.

La Grange, Ind.

WINTERING.

Saving Stores in Wintering Bees in Cellars.

Written for the American Bee Journal

BY JOSEPH BEATH.

In answer to Query 613, on page 101, in regard to wintering bees outdoors, one replies thus: "The extra amount of honey used, is used as fuel to keep the bees warm. Is the fuel you burn in your stove, in keeping the house warm, wasted? If so, had you not better move down cellar with your family, so as to save it?"

Now that is precisely what people have done in Kansas and Nebraska, where both lumber and fuel is scarce, and the soil is generally dry. But who would think of doing it where both fuel and lumber were plenty, and the subsoil full of water?

Again, a part of another answer reads as follows: "Honey used to keep the bees in the hive warm, should not be deemed *wasted*; wood or coal used to keep humanity warm in houses, is never thought to be wasted—each serves the purpose intended."

Exactly so! because a house is the best protection against the elements man has yet been able to devise, and the better that house is built to retain the heat, the less fuel it will take, and the more comfortable the family will be. But, suppose instead of going into the house to make the fire, you should go into the back yard, erect an Indian wigwam, build your fire in it, and take your family there to warm, say with the mercury at zero; would not most of the fuel and the comfort of the family be wasted then? And is not this nearer the condition of a colony of bees in a common hive, left out-of-doors in an average Northern winter?

Of course, the wigwam was all right for the Indian, for it was the best he could do; but surely one-half of the men that keep bees, already have cellars that they could put them into, at least in the Northern States, where it is profitable to do so; and it seems to me, all that might be saved and is not (less the cost of saving), is clear loss.

I leave out of the question the disputed point as to which will come out best in the spring, but I believe, say north of 40°, 41° or 42° north latitude, it has of late years been in favor of the cellar. A large part of the spring dwindling in cellar-wintered bees, can be avoided by letting them alone until warm weather comes, and they can go to work.

The greatest bee-man that used to be in this county, used to winter his bees successfully until about March 1, and then he would put them out, and clean out all the hives, and by May, when they could work, they were half dead; and finally one spring they all died.

Corning, Iowa.

STRONG TEMPTATIONS.

You might as well say to the bee,
As she 'lights on the lip of a flower:
"Its beauty you're welcome to see,
But the honey must stay and get sour."
Do you think she would listen to yon long,
With the treasure just under her eyes?
No; she'd find the temptation too strong,
And make a bold dash for the prize.

Or, supposing a bird on a tree,
Where cherries were rosy and sweet,
And you told it to let them all be,
For you thought them too pretty to eat:
Do you think that the bird would obey,
And with feasting its eyes be content?
No. "To let such fruit spoil," it would say,
"Was never Dame Nature's intent."

So do not be cruel and scold,
And ask me a promise to make,
That I'll never partake of the wealth,
That's forbidden to any to take;
For honey was made for man's use—
Though the bee may utter "Nay, nay!"—
Yet 'tis taken away just the same,
And not even a "Thank you" we say.

—*Selected.*

EVOLUTION.

The Growth and Atrophy of Animal Organs.

Written for the American Bee Journal

BY J. F. LATHAM.

In that pearly atom, the ovum of the queen-bee, are stored the concentrated efforts of nature for limitless epochs, which now develop a perfect insect in sixteen days. The food supplied to the larval bee during the various stages of its growth, bears a strong resemblance to that which is supplied by the co-operating agencies, to nature's spontaneous offspring at a corresponding stage of development. The manner of receiving that food by glandular absorption is very nearly the same in each. At a certain stage the molecular diet is discontinued, and the organs of generation are bared in their growth, illustrating very definitely at what point in the development of cosmic life the same act was consummated by the hidden agencies of nature; thereby establishing the individuality or duality of the sexes as seen at the present time.

From this stand-point, which embraces, so to speak, a view of the sphere of the reproductive agencies in the economy of nature, the evidence is very nearly absolutely conclusive, within the scope of our present sense, that in their primitive stages of development, organisms pertaining to animate life were (and are) androgynous. By discarding conditional conclusions, and assuming this to be a fact, the evidence is as conclusive that the entites of each distinct species would comprise but one gender nominally, but in reality possess the germs of both in a stage of development compatible with the grade of progress to which they had arrived in their evolutionary rounds.

In that occult description of the "creation," delineated in the first chapter of Genesis, we are taught that the waters were commanded to bring forth the moving creature having life, and fowl that may fly in the open firmament. Next we are taught that the earth was commanded (admonished) to bring forth the living creature after his kind, cattle and creeping thing, and beast of the earth after his kind; all in the singular number and masculine gender.

Again, we are assured that the beast of the earth was made after his kind, and the cattle after their kind, and every creeping thing upon the earth after his kind. Lastly, in the order of progressive "creation," man appeared in the image of his Maker—man, by possessing faculties, or attributes, superior to the collective forces of the whole animal "creation" that preceded his advent.

In the second chapter of Genesis, in review of the first chapter, we are taught that man was formed of the dust of the earth, the breath of life was breathed into his nostrils, and man then became a living soul—an intelligent being. As this narrative of the "creation" (purported to have been drawn from Acadian and Turanian sources, more than a thousand years prior to the compilation of the Book of Genesis, as evinced in resurrected Assyrian literature), is but an epitome of the occultism which underlies the development of modern geological research, it requires no stretch of the imagination to grasp the fact that in the first stages of evolution pertaining to the present order of things on this planet, in animate organic life, that which is termed sex, was represented in specific language as a personifica-

tion of the ubiquitous life power so subtly expressed in Oriental physics, as the only one living element of the Universe—the spiritual and material principle, which,although unconscious, and in an indefinite sense "non-existent when separate," develop "consciousness and life when brought together."

Could we go back to the dawn of evolution, when cosmic matter received the first impulse of the spiritual efflux, and imperceptibly responded in the primoidal ripples of life, and accompany it in its cyclic rounds through the countless ages of changing progress until it culminated a comparatively perfect organism, the problem of atrophy in useless members of the body would be readily solved.

As the matter now appears, it seems that the most rational solution of the phenomena would be that, Mother Earth, stimulated by her surrounding correlatives, takes the lead in the changing courses of destiny relative to her offspring, and molds them to the sway of the ruling impulses accompanying the successive periods of growth and disintegration consonaut to their situation. If the life element will only admit the existence of monads, Nature is in a condition to nurse them to existence. If the cosmic elements warrant their existence, molecules will make their appearance.

Another degree, and the entites are prompted to life at the starting point of organic beings—beings organically androgynous—thrown from their defferentiating centres in numberless divergencies,supported in their impetus by the agencies which gave them birth; and destined to survive or subside, as the cyclic or cataclysmic changes incident to their progress directed. If, in their passage along the ascending line, the revolutionary changes from water to land rendered them amphibious, and legs and feet were needed to harmonize their existence to the change,the same agencies that prompted the dawn of being was ready to administer to their needs. While in the water, scales were the best protection for their bodies, fins the best means for locomotion, and gills the best organs to convey oxygen to their circulating fluids. When the drift of circumstances decreed the air to be their theater of life, the hidden forces which evolved those circumstances, gave them wings as means of transport from place to place, when searching for sustenance or habitation.

If in a cooling atmosphere, the combustion necessary for their existence required protection, the "Elemental Guardians" supplied them garments of hair, fur or feathers, as their sphere of life required—and, Nature being impartial in the exercise of her functions relative to her multitudinous designs, no discrimination was made, or is made in her dealings with any one species of (animal) life in its journey from the infinitely small to the infinitely great—from inorganic matter to organized intelligence. When, by changing conditions, members once useful to the body become useless, disuse would render them mummetied indices of by-gone functions; thus displaying in the atrophied glands of the queen-bee, that parthenogenesis was, at one period in the existence of her species, a more substantial reality than at its present stage of development; and that one of the functions of our "babboon ancestors" is indicated in the mammary glands of their progeny, leaving an opening for a shadowy conclusion that, with the countenanced authority of ages, as to the merits of a sacred trust, a discrepancy exists in the primeval distribution of the generative attributes.

Cumberland, Maine.

HORTICULTURE.

The Relation of the Honey-Bees to Horticulture.

Read at the Nebraska Convention

BY REV. E. T. ABBOTT.

A very close connection exists between the two subjects, and the relation, one to the other, should be considered in all its bearings. It is evident that flowers are useful to insects, but the question arises, are the insects of any use to the flowers?

First, it is to be seen what benefit the insect is to horticulture, and then what harm, if any, the insects cause to flowers.

An ordinary flower will be taken for an example. Inside of the corrolla is a set of organs called stamens, and on top of them is an organ called anther, containing a powder known as pollen, which carries the male element of the flower, or the sperm-cell. In the center of the flower is another organ, or organs, called a pistil, composed of three parts, the stigma, style and ovary. The ovary is a hollow case or pod, which contains rudimentary seeds, and in which are found at the proper time the embryo sac that contains the germ-cell. To produce fruitage the sperm-cell must be brought into immediate contact with the germ-cell. The question is, how are these two elements to be brought together?

When all of the organs are found in one flower, or in the case of the one described, the process is very simple. A gentle movement of the wind after the anther has ripened will shower the potent grains of pollen down upon the receptive stigma. Soon there is found what is known as the pollen-tube, which, growing downward through the style, enters the cavity of the ovary, and guided by some mysterious yet unerring power, makes its way to the embryo sac. Movement, growth and all formation commences, and thus is formed the fruit and seed, in which lies beautifully folded the embryo plantlet of the future tree, bush, vine, or whatever it may be.

In some flowers the process of pollenation is more complicated. They are so constructed that the pollen cannot reach the stigma, although in the same flower. In some instances the pollen dust is so constituted as to be of no use to the pistil of the same flower, and in many flowers the stamens and pistils are not fully developed at the same time. In these and in other cases some outward agency must be looked to, to bring the two elements together. This brings up another important part of the subject. Not only pollenation is desired, but pollenation in such a way as to secure cross-fertilization, preventing what is known among stockmen as "in-breeding." Here comes in the work of the bees. In visiting the flowers they carry pollen from flower to flower, and thus do for the plant what it cannot do for itself.

It has been shown by experiments that self-fertilized plants, that is, fertilized by their own pollen, are generally much inferior in vigor and strength to those that are cross-fertilized. In many gardens and greenhouses bees are kept for this very purpose.

In this connection, lest some one may ask why this mixing up of pollen of various plants will not create great confusion by the production of hybrids, etc., it may be stated that Aristotle observed, over 2,000 years ago, that bees visit the flowers of the same species as long as they can, and this has been confirmed by later observation. The wind, and other insects than bees are valuable in accomplishing cross-fertilization, but many trees and plants have to depend upon the bee.

The question now comes up, do bees ever injure fruit? The prevailing testimony seems to be that, as a general thing, bees do not perforate flowers. The main ground of complaint has been that the bees injure the fruit itself, especially the grape. Prof. McLain, who is employed by the Government to make experiments in apiculture, has devoted considerable time to this subject. He confined a number of colonies of bees in a house, and endeavored by heat, etc., to bring

about drouth, and they were brought to the stages of hunger, thirst and starvation, the test lasting forty days. Thirteen varieties of grapes were placed before them, and every opportunity afforded the bees to appease their hunger, but in no case were the bees able to pierce the skin of a sound grape, or otherwise harm it. When the skins had been cracked or bursted, the bees lapped and sucked the juice out, but the sound fruit was untouched. My own experience has corroborated these statements. The jaws or mandibles of a worker-bee are not constructed for cutting hard, tough substances.

Permit me to make one remark in conclusion that does not properly relate exactly to the subject, but rightly grows out of it, I think. In religious matters I am inclined to be very liberal, and give the utmost liberty to others; yet it seems to me that no man can study carefully such statements as I have made and kindred facts without being forced to the conclusion that there is a "power not ourselves" behind nature, "which makes for righteousness," whether he agree with me, and call that power God, or not. To me all this is the manifestation of an Infinite Father, and I would it might be to all men.

St. Joseph, Mo.

COMB HONEY.

Some of the Practical Points in its Production.

Read at the Maine Convention

BY L. F. ABBOTT.

There was a time—away back so far that we do not care much about it now—that honey formed the great sweet of the world, and it held its place in the affections of our old-time esteemed relatives up to a little matter of time of about 200 years ago—more or less, a few years either way makes no difference.

The production of cane sugar and syrup by the production of the slaves in the seventeenth century (our remote relatives had not begun to imbibe the great moral lessons taught by the bees), had, in a great measure, displaced honey as an article of food, and while our several-times great grandfathers quite readily "caught on" to the idea of manufacturing sweets themselves from the products of the fields in the sugar-cane, they had the most ridiculously absurd notions concerning the wonderful little bee, that has not changed a whit in its instincts, habits or want of respect for its friends. Hence, while the bee was just as wise then as to-day, and laughed out of both corners of its mouth at the old-time obtuseness of our relatives, in missing the real "business end" of the bee—for which, as now, they often gave emphatic pointers—for this reason slow progress was made in improvements in bee-culture, and instead of increasing the number of colonies, there were annually thousands of them destroyed with the brimstone match, in order to secure their honey. So, on account of this wholesale destruction of bees, and the lack of a proper knowledge of their instincts and their successful management, honey fell into comparative disuse for many years; and this state of things continued, with only slight improvement up to within a quarter of a century ago. Since that period the most wonderful strides have been made, both in the science of bee-keeping and the appliances used in the successful management of bees.

These wonderful improvements, and the close study and painstaking experiments that Yankee bee-keepers have adopted, have been the means of increasing the amount of honey-production immensely, and if this production continues to increase as rapidly during the next ten years, as it has in the last decade, may we not reasonably expect that honey will take its place among the leading products of this country?

Strength of Colonies.

A fundamental principle to be observed in the production of honey in either form—comb or extracted—is strength of colonies; and I would, if possible, make provision for the contingency of weak colonies in the spring, by having all colonies go into winter quarters strong in numbers. There are extremes to be avoided in both ways—too large colonies and too weak ones.

I mean by that, that the abnormally large colonies we often find in the apiary, where a part or all have been run for extracted honey, are not the best to winter, unless special provision is made in order to get them through, and then, my experience has been that it is better to divide such colonies immediately after the summer harvest is over, giving a laying queen to the queenless portion, and build up two colonies for winter in lieu of one. There is a strong liability that the large mass of bees in such a colony, left undivided, will die before spring, while on the other hand, the two medium ones, if properly taken care of, are pretty sure to survive the winter months.

These medium populous colonies in the fall—which may be called strong ones—as a rule, are the ones which will come through the winter, when wintered in a good cellar, nearly as strong as when they are put into winter quarters in November. This may be accounted for on the supposition that early breeding commences, and their number are kept up by the production of young bees.

Now I know there is a point for discussion here; some of our best apiarists believing that it is injurious to the future prospects of the colony to have the queen commence laying before March or April; but it is needless to remark that it is the strong colonies which store the surplus honey in June and July, and take advantage of the white clover harvest. Then the question arises, how shall we attain to this maximum strength of colonies, unless we can start with strong colonies when put upon the summer stands from the cellar?

Now, on the other hand, a weak colony put into winter quarters in November or December, will be weaker in April or May. A little patch of brood will probably be found in such, the last of March. Such colonies cannot be expected to begin work in surplus cases, at least until seven frames of the Langstroth size are pretty well crowded with bees. Ordinarily this cannot be accomplished till the summer honey harvest is well advanced, unless such colonies are helped by stronger ones; and this is hardly a paying method.

All of our considerable apiaries contain more or less colonies of bees which do not come up to the standard of honey-production that others do. I know there are causes, other than the one I have set forth, to which the difficulty may be attributed in part. These are—some of them—want of prolificness in queens, disease in winter depopulating the colony, loss occasioned by age of bees, etc.

Then, if my premises are sound, the first point to be considered in the production of comb honey is the oft-repeated injunction, to have strong colonies in the spring, and to accomplish this, we must adopt a plan at the close of the preceding honey harvest, to insure strong colonies of young bees to place in winter quarters.

Putting Bees Out of Cellars.

Spring now comes with its vicissitudes. The fact is generally admitted (disbelievers can learn by experience) that bees wintered in-doors are more subject to loss by spring dwindling than those wintered out-of-doors. To obviate this as far as possible, it is best to keep the bees in the cellar till May 1, if they can be kept quiet. There are exceptions to such a rule, for sometimes our seasons give us warm weather, and that continuously from

April 15. The past two seasons, early May brought cold weather, which the bees could have passed to better advantage in the cellar, rather than "nosing" around the willows with "overcoats and mittens on."

Stimulative Feeding.

The question of stimulative feeding in the spring is one of importance. There is no question but such feeding has an effect upon the colony in quickening their energies and giving them the impulse of breeding. This impulse is not confined to the queen alone, as some people seem to believe, but the energizing influence pervades the whole colony.

The question of feeding in the early spring to induce breeding is one which needs to be carefully considered, because it is easy to do more harm than good by adopting the practice. I believe it is better to feed in September for spring strength than in the following May, unless it be the very last of the month, as the seasons latterly have come to us.

Keeping the Bees Warm.

But there is one thing that is always in order in early spring, and that is, to take every precaution possible to retain the internal heat of the hive, and prevent ingress of cold from without. The bees have this provident care inherent in their nature, as is shown by their care in sealing up all cracks and crevices in every part of the hive before the advent of cold weather.

The moving of hives in the spring, and manipulating them from the top, as each hive should be when placed upon the summer stands, so far as is necessary to clean out all dead bees and remove moldy combs, and to contract the brood next to proper size for the colony; these manipulations necessarily sunder the carefully glued joints and crevices, leaving numerous ways for the cold to creep in, and warmth to escape from the hive.

This may be quite effectually prevented by the use of cushions, dry chaff and leaves—the latter is always preferable to chaff. Extra pains to tuck the cushions and quilts down, and not be sparing of the amount put on through May, will pay for the trouble.

For the reasons just stated, I would as far as possible winter bees in chaff hives, or change the colonies to such as soon as practicable in May. The chaff hive as now made is superior to the single-walled hive. To Mr. E. P. Churchill, of Hallowell, I believe, belongs the credit of making improvements in the chaff hive, which places it ahead of any single-walled hive I have used for the production of comb honey.

Lewiston, Maine.

HONEY-LABELS.

The Granulation of Extracted Honey—Report for 1888.

Written for the American Bee Journal

BY CHAS. K. BIXLER.

I have before me some labels bearing the following inscription: "This honey will candy as soon as cold weather begins, and is, in fact, the best proof of its purity."

Candying may be a proof in some localities, but is certainly not in this. I have at present honey in glass and earthen jars, both filled at or nearly the same time, of the same kind of honey, and having the same kind of covering. Both jars were kept in the same room, and subject to the same temperature. The honey in the earthen jar was candied long ago, but in the glass jar it is liquid still. Now if the glass jar had been labeled as above, and been sold, what would the purchaser have thought? He would have had some reasons for thinking that it was adulterated. It might leave a wrong impression.

In the winter of 1886 heart's-ease honey did not candy until very nearly spring. I believe that the labels should read so as to leave a possibility for the honey not to candy, something like the following: "This honey may candy," etc.

The Season of 1888.

In November of 1887 I put into a cave 35 colonies of bees. All wintered excepting two, which starved. But very few had honey enough to last until the time of white clover bloom. April was dry, cold and windy, and everything was very late. Box-elder blossomed the last of the month, and bees did very well on it for a few days.

May was cold and wet, and bees did nothing during fruit bloom. They had but little brood for the time of the year. White clover began to bloom the last of May, but yielded little or no nectar. Feeding was the order of the day during the first of June, but in the latter part of the month white clover yielded enough honey to start swarming. I had 6 swarms in an apiary of 33 colonies, mostly Italians. Black bees in this vicinity swarmed from one to four times each.

Basswood failed, and during the last of July some colonies absconded. A good deal of feeding was done. The fall rains began early, and continued through August, which produced an enormous growth of flowers. Beekeepers were hopeful, but just as the principal plants began to bloom, a hailstorm cut down everything in the flower line in this immediate vicinity. The sugar-barrel was the only apparent outlet. The hail was on Aug. 10; on Aug. 17 bees were gathering enough honey to live on, and in a few days they began storing in the surplus receptacles.

On Sept. 12 the flow ended. From 36 colonies I got about 800 pounds of heart's-ease honey—about half comb honey, in one-pound sections. The brood-chambers were solidly filled, and bees have more honey this winter than any winter since 1885. The last was the third poor season in this locality; but white clover is in good condition, and we are hoping for a good flow of honey in 1889.

Honey sold here for 18 to 20 cents per pound for comb, and 10 cents for extracted.

On Dec. 4 I put the bees into a cave. The winter has been very pleasant so far, the temperature in the cave being at or near 42°, Fahr. The bees seem to be wintering finely, and very few dead bees are to be seen.

Hoyt, Iowa, Feb. 4, 1889.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Mar. 13, 14.—Cedar Valley, at Waterloo, Iowa.
J. J. Owens, Sec., Waterloo, Iowa.

Mar. 30.—Agency, at Agency, Mo.
T. S. Smith, Sec., Agency, Mo.

Apr. 23.—DesMoines County, at Burlington, Iowa.
John Nau, Sec., Middletown, Iowa.

May 1, 2.—Texas State, at Greenville, Tex.
G. A. Wilson, Sec., McKinney, Tex.

May 4.—Susquehanna County, at Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 21.—Northern Illinois, at Pecatonica, Ill.
D. A. Fuller, Sec., Cherry Valley, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Bees and Toads.—E. E. Smith, Watertown, Wis., on Feb. 26, writes:

On page 102 Mr. E. Strong writes about toads eating bees. As I understand him, he says that toads will not eat bees. The toad that he was watching was either a cunning one, or a different species of toads from what we have here. I had one hive last summer that had a poor cover, and as I did not like the hive, I did not take the trouble to make one, so I put it under a shed. The floor of the shed was about 8 inches from the ground. I leaned a board from the ground to the floor of the shed, so that if any bee happened to fall on its way home, it could come up on the board. One night in the summer I heard a toad coming through the grass, as much as

a rod away. I step back to to see what it would do. It came on and up the board to the front of the hive, and there it stopped. The bees were running around in front of the hive, and one bee came in the direction of the toad, when the toad made a spring, and the bee was gone. The bee was as much as 10 inches away when the toad sprang. I saw it take as many as a dozen bees, and each time the toad took a bee, it stepped back to its place and waited for another. I saw the toad do it again the next night, when I shoved it up to the entrance of the hive, and let the bees punish it; then I took it to the garden, where it belonged. I like to have toads in the garden, as they are very great bug catchers.

Good Season Expected.—Christian Weckesser, Marshallville, O., on March 1, 1889, writes:

Bees seem to be wintering nicely. Much of the winter here was pleasant, but bees have not had much of a flight since November. Of late the weather has been rather severe, but it is moderating, and we hope to soon hear their merry hum again, and hope also to have a better honey season than we have had for several years. I think that the indications are such, and it is well, at this season of the year, to make preparations for it. Many farmers have neglected their bees because they have not been profitable, thus leaving the field almost entirely to those who will be wise enough to have their "dishes right side up" when the flow comes.

Honey Colic.—B. F. Barb, Joetta, Ills., writes thus on Feb. 27, 1889:

Nearly half the people in this locality dare not eat honey on account of its giving them the colic. What is the cause and cure for it? Who will answer?

As Mr. Barb is located in the same county as Chas. Dadant & Son, we referred the matter to them for answer. They say:

We do not know what to answer. Although this is at the other edge of the county, we do not think that the blossoms differ any. We have known of many people that honey made sick, and we find that all such people will easily become accustomed to eating and digesting it by using it regularly, in very small quantities at first. Usually, after the third meal, the stomach is used to it. We find, also, that granulated extracted honey digests best, and that fresh honey is the reverse.

Sickness from eating honey often comes from incautiousness, eating too much of it, or eating it while the stomach is working on food not entirely digested, but in course of digestion. Honey excites the secreting glands of the alimentary ducts to such an extent that it is a good remedy for constipation, and when it is ingested between meals, the course of digestion is sometimes deranged by the influx of too much gastric juice, and pains, colics, etc., are the result. Honey being a laxative, it is best not to eat it in too large quantities when not accustomed to it. We do not know of any unhealthy honey produced in this vicinity.—CHAS. DADANT & SON.

White Clover.—Mrs. L. C. Axtell, Roseville, Ills., on Feb. 23, 1889, says:

On examining the white clover, Mr. Axtell found it injured some by the dry weather of last season, but he thinks if we get suitable rains, we may yet have a fair crop of honey.

Removing Bees from Cellars.—T. Walker, Ashton, Ills., on March 1, 1889, writes:

I would like to learn whether I must place my bees in the same spot when I take them from the cellar, that they were in when I put them into the cellar; or can I place them in a different part of the lawn, without danger of losing any of them?

[If put out of the cellar upon the old stands it may save some *old* bees—to the young ones it will make no difference; therefore it would be preferable, if convenient, to return the hives to the summer stands they occupied when taken into the cellar—though it *may* make but little difference.—ED.]

Uncapping Honey, etc.—Henry Durham, Sylvania, Ind., on Feb. 19, 1889, says:

Bees are wintering finely in this locality. I have 16 colonies mostly in chaff hives. Last night was the coldest of the season—7° below zero. When I was young, I blacksmithed for a living. I heard of a young blacksmith who made a pair of tongs; when he riveted them, he could not work them, so he laid them down and went to an old smith and said that he knew a smith once who made a pair of tongs and could not work them. The old smith said that he ought to have heated the tongs and worked them. So the young man returned and finished them. I know a man that procured an extractor, and had no regular uncapping-knife; so he got a thin case-knife, bent it to suit, sharpened it nicely, tried to uncap a frame of honey, but the comb stuck to the knife like a piece of iron to the hand on a cold morning. Ought he to have warmed the knife? Let us hear about it.

Bees Flying Nicely.—Mr. C. W. McKown, Gilson, Ills., on March 5, 1889, says:

I put into winter quarters last fall, 99 colonies of bees in chaff hives; all are alive to-day, and apparently in fine condition, flying nicely, and seeming to enjoy themselves. As to the prospect of the coming season, I am no prophet.

Cooling the Cellar with Ice.—Wm. Pearson, Oswalt, Iowa, on Feb. 21, 1889, writes:

My bees are wintering nicely in the cellar. I put them in on Nov. 15, with the hives four tiers high. The weather at times here has been very warm, and the temperature went up to 52° in the cellar. At present we are having a cold spell. I will try to keep the bees quiet by putting ice in the cellar, which is not large, and I have 108 colonies packed in it.

Queenless Colonies, etc.—John Kerr, Cedar Falls, Iowa, on March 2, 1889, says:

I commenced the season of 1888 with 4 colonies of bees, being the second winter that I have had my bees out of the cellar. Two were rather weak. The season was very poor for surplus honey last year, and I obtained about 100 pounds of comb honey, had 10 natural swarms, and put 2 back. I have 12 in the cellar, which are doing well, to all appearance. Is it best to examine every colony in the spring to see whether they are queenless? If they are, what is the best course to pursue?

[Yes; it is desirable to examine all colonies in the spring, clean out the hives, and if any are queenless, unite them with a weak colony having a good queen.—ED.]

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

Simmins' Non-Swarming System, and the AMERICAN BEE JOURNAL for one year, for $1.25. The subscription to the BEE JOURNAL may begin anew at any time.

We Supply Chapman Honey-Plant **SEED** at the following prices: One ounce, 40 cents; 4 ounces, $1; ½ pound, $1.75; 1 pound, $3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of of any other papers. Send for such to the publishers of the papers you want.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

Honey and Beeswax Market.

SAN FRANCISCO.

HONEY.—White comb, 10@11½c.; dark, 6½@8c. White extracted, 6½c.; light amber, 5¾@6c.; dark amber, 4½@5½c.
BEESWAX.—18@22c.
Jan. 25. O. B. SMITH & CO., 423 Front St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 18@20c.; best 2-lbs., 16@18c. Market is very strong and stock of white comb honey is very light.
Mar. 9. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 16@17c. Sales slow. Extracted, 9@10c.
BEESWAX.—22@23c.
Feb. 11. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 16@17c.; 2-lbs., 14@15c. Gond dark 1-lbs., 13@14c.; 2-lbs., 12@13c. Buckwheat 1-lbs., 13@14c.; 2-lbs., 11@12c.—Extracted, 6½@8½c., depending upon quality and style of package. Market dull and stock sells slowly.
BEESWAX.—22c.
Jan. 24. S. T. FISH & CO., 189 S. Water St,

ST. LOUIS.

HONEY.—Choice white clover comb, 13@15c.; fair 11@12c.; dark, 8@10c. Extracted, dark, in barrels, 5@5½c.; choice, 5½@6c.; in cans, 6@7½c. Market is quiet but steady.
BEESWAX.—20c. for prime.
Jan. 17. D. G. TUTT & CO., Commercial St.

CHICAGO.

HONEY.—Best 1-lbs., 17@18c. Extracted, 7@9c. for best quality, according to body, flavor and style of package. Trade is limited to local consumption. Off grades of comb honey are slow at lower figures than given above. But few will buy dark comb.
BEESWAX.—22c. R. A. BURNETT,
Jan. 17. 161 South Water St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 15@16c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c.; fair 1-lbs., 12@14c. Extracted, white, in kegs and ½-barrels, 8½@9c.; amber in same, 7½@8c.; in pails and tin, white, 9½@10c.; in barrels and ½-barrels, dark, 5½@6c. Market dull. The very best sells slowly, and inferior qualities are neglected very much. Damaged, broken and leaky comb honey not wanted.
BEESWAX.—22@23c.
Jan. 10. A. V. BISHOP, 142 W. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb boney, 12@16c. Demand is only moderate. No overstocking of the market.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Feb. 21. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—White 1-lbs., 16c.; fall, 14c.; California 1-lbs. 16c.; white 2-lbs., 14c.; extra 2-lbs., 13c. Extracted, white California, 8c.; amber, 7c. Market dull.
BEESWAX.—20@22c.
Jan. 22. CLEMONS, CLOON & CO., cor 4th & Walnut

KANSAS CITY.

HONEY.—Choice 1-pounds, 15@16c.; dark 1-lbs. 12c.; 2-lbs., 14c.; dark, 11c. White extracted in 60-lb. cans, 8c.; amber, 7c.; in barrels and kegs, 5@8c. Demand good, prices steady, and stock large.
BEESWAX.—None in market.
Jan. 4. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—White, in 1-lb. sections, 15@16c. Extracted, 9@10c.
BEESWAX.—20c.
Jan. 1. J. M. CLARK & CO., 1409 Fifteenth St.

NEW YORK.

HONEY.—We quote: Fancy white 1-lbs., 14@15c.; 2-lbs., 12c Fair white 1-lbs., 14@15c.; 2-lbs., 10 to 11c. Buckwheat 1-lbs., 10@11c.; 2-lbs., 9@10c. Extracted, white, 7½@8c.; dark buckwheat, 6@6½c. which is in good demand. Market dull, except for extracted buckwheat; for all other kinds it is quiet, owing to unseasonable weather, we believe.
HILDRETH BROS. & SEGELKEN,
Jan. 10. 28 & 30 W. Broadway, near Duane St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½ cents; amber, 6c. Comb, white 1-lbs., 13@14c.; 2-lbs., 13c.; amber, 10@11c. Demand is of a jobbing nature, and arrivals are small.
BEESWAX.—19@20c.
SCHACHT, LEMCKE & STEINER,
Jan. 8. 16 & 18 Drumm St.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

Advertisements.

ITALIAN BEES.

A FULL COLONY with Tested Queen, in Langstroth hive, only $5.00. Address,
11A1t ARTHUR MEYER, Pekin, Ills.
Mention the American Bee Journal.

The Revised Langstroth, and Dadant's Foundation. See advertisement in another column.

For Sale or Exchange,

ITALIAN BEES and QUEENS. Address
to OTTO KLEINOW,
11A1t 150 Military Ave., DETROIT, MICH.
Mention the American Bee Journal.

HOME EMPLOYMENT. AGENTS wanted everywhere, for the HOME JOURNAL—a grand family paper. *Big Cash Premiums.* Sample FREE.
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923 & 925 West Madison-Street, - CHICAGO, ILLS.

FOR SALE.

100 COLONIES Italian and Hybrid BEES, in Langstroth hives—Italian, $3.00; Hybrid, $2.50 per Colony.
Address, J. W. HOWELL,
11A2t KENTON, TENN.
Mention the American Bee Journal.

THOS. G. NEWMAN & SON,

DEALERS IN

Bee-Keepers' Supplies,

INCLUDING

Honey and Wax Extractors,
Comb Foundation—all styles,
Bee Hives—nailed and flat,
Sections, Crates and Frames,
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Smokers, Veils, etc.

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Voice of Masonry and Family Magazine.

Three years a Paper and twenty-five a Magazine. Now unexcelled. Contains fine Portraits and Illustrations, and a great variety of articles, stories and poems for Freemasons and their families; also Eastern Star, Masonic Gleanings and Editorial Departments. Price per year, $3.00.
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WE have a lot of Queen-Cages, like the one illustrated, not provisioned, which we will sell 3 for a dime, by mail, postpaid.
THOS. G. NEWMAN & SON,
923 & 925 West Madison-Street, - CHICAGO, ILLS.

Dibbern's Malleable Hook

One-half of the regular size.

FOR fastening loose **Bottoms to Hives,** and many other useful purposes. The *neatest, best* and *cheapest* thing out.
☞ **Price, 20 cents per dozen.** ☜
Address, C. H. DIBBERN,
10A13t MILAN, ILLINOIS.
Mention the American Bee Journal.

A New Book on Bees, and Dadant's Comb Foundation. See advertisement in another column.

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WE can furnish Electrotypes of all the Engravings used in this JOURNAL or in our Catalogue, at **25 cents** per square inch. If to be sent by mail, add 10 cts. for postage. No single Electrotype sold for less than 25 cts.
Measure from outside points shown, on both length and width of the printed impression.
THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL.

Send 75 Cents for my Book, entitled—"A Year among the Bees;"—114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.
Mention the American Bee Journal.

PLANT SWEET CLOVER.

WHEN it once gets a start, it furnishes permanent bee-pasturage.

WHERE IT GROWS

there is never a season of total failure of the honey crop, and the honey is equal, if not superior, in flavor and appearance to white clover honey.

We can supply the seed at the following prices: $6.00 per bushel; $1.75 per peck; 20 cents per pound—by express or freight. If to be sent by mail, add 10 cents per pound for postage. (60 pounds in a bushel).

THOS. G. NEWMAN & SON,
923 & 925 W. Madison-St.,....CHICAGO, ILLS

The Hive and Honey-Bee, and Dadant's Foundation. See advertisement in another column.

VICK'S FLORAL GUIDE.

1889—Pioneer Seed Catalogue of America. Complete list of Vegetables, Flowers, Bulbs and Small Fruits, with descriptions and prices. New Shape New Type, completely revised and improved. Contains more varieties than any other catalogue printed. 3 elegant colored plates 8x10½ inches, and a frontispiece. Every person who owns a foot of land or cultivates a plant should have a copy. Price of VICK'S FLORAL GUIDE, containing a certificate good for 15 cents worth of Seeds, only 15 cents. JAMES VICK SEEDSMAN,
Rochester, N. Y.

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD
PUBLISHED BY
THOS. G. NEWMAN & SON,
CHICAGO, ILL.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. March 23, 1889. No. 12.

W. M. Barnum, of Angelica, N. Y., on March 11, 1889, says :

My bees appear to be wintering well. This is the general report of the condition of bees this spring, so far.

The Weather is so mild on the coast of North Wales that primroses, violets, snow-drops, chrysanthemums and roses are growing in the open air. The songs of the thrush and black-bird are heard daily.

The Eastern Markets being glutted with oranges, the Southern California growers lately ceased picking for a week. The orange crop in Florida is so great, and prices so low, that much of the fruit is allowed to rot on the ground.

Bee-Candy.—The *British Bee Journal* says : "What is known as Good's candy....should be properly called Scholtz's candy, as this gentleman was its discoverer." Perhaps brother I. R. Good will tell us about that ; or is the above item *news* to him as well as to many others ?

Feeding Rye Flour to bees is a seasonable matter now, and Mr. B. F. Sheets, of Wellington, Ills., made this request on March 9, 1889 :

Please tell me in next week's BEE JOURNAL just how to feed rye flour to my bees. The BEE JOURNAL has given me lots of valuable information about bees. I am only a beginner in the art of bee-keeping.

It should be put where the bees can get at it. Dr. Miller says : "The best way I have tried is to take hive covers 6 or 8 inches deep, put a stone under each near the middle, and put the rye meal on them. As often as the bees work down the feed, turn the cover around so as to leave feed at the upper end." It should be covered so that rains would not make it wet.

Lynch Law.—Much has been heard of Lynch law, and perhaps it would not be amiss to record its origin. Mr. E. C. Jordan, of Jordan's Springs, Va., writes as follows :

Henry Howe's history of Virginia, published in 1845, on page 212, tells when and how "Lynch law" originated. The enclosed paragraphs were published in our local papers at a request. I hope you may think it worthy of a place in your paper :

ORIGIN OF LYNCH LAW.—Lynch law is pretty generally understood as the taking of life, without process of law, of a felon who has been convicted at the bar of public opinion of an offense deserving of death. But it is not so generally known that the name originated in Campbell county, Va., before the Revolutionary war. At that period the country was thinly settled, and was infested with tories and desperadoes—too many of them, apparently, for the local authorities to adequately punish. Col. Charles Lynch, a distinguished officer of the Revolutionary army, undertook to rid his county of the outlaws. He organized a force, arrested the outlaws, and having satisfied himself and comrades of the accused, executed them without reference to the constituted authorities.

While not altogether approving of the desperate remedy for a desperate cause, the beneficial effect of Col. Lynch's action was recognized, and has since been known as "Lynch's law," or "Lynch law."

Lynch's process of meting out speedy justice extended to other parts of the country, and is a well recognized form of redress of grievances to-day, particularly for that class of offenses that are popularly believed not to be adequately punished by the statutes and courts of the State. Col. Lynch's brother gave his name to, and founded Lynchburg, and left a son who was subsequently Governor of Louisiana.

Died at Quincy, Ills., at 1:30 a.m., on Sunday, March 10, 1888, Mr. C. H. Smith. Mr. Allen Lewton writes us as follows concerning the demise :

DEAR EDITOR :—I send you a notice of the death of our friend and brother bee-keeper, Mr. C. H. Smith, who has passed to the summer land, and left his 118 colonies of bees to be manipulated by other hands. He leaves a loving wife and four little children to battle with the cold world. He was one of the foremost and best-posted bee-keepers of this section.

The particulars sent are as follows, gathered from a Quincy daily paper :

Mr. Smith was born in New Orleans, La., in 1852, and next May would have been 37 years of age. In 1874 he came to this city, where he has since resided, marrying a daughter of Mr. Summers, pattern-maker at Thomas White's stove foundry. For years he has been engineer at White's foundry, until recently, when he was taken down with inflammation of the bowels. After suffering for some time he grew better, and his friends looked forward to his recovery, but two weeks ago he took a relapse, from which he never recovered.

How to Build a House.—This is the title of a new book containing plans and specifications for 25 houses of all sizes, from two rooms up ; also, engravings showing the appearance of houses built from the plans given. It also contains much that is valuable to those who intend to build. Price 25 cents. Published by J. S. Ogilvie, 57 Rose Street, New York.

Bees' Visits to Flowers.—Mrs. M. B. Chaddock, in the *Popular Science Monthly* for February, takes exception to an article which appeared in the October number of last year, from the pen of Mr. Grant Allen, concerning the visits of bees to one particular species of a plant at one time when in quest of honey. She remarks as follows in her own vigorous style :

It is not true that bees only visit one species of plants on each trip. Bees will go from the red to the black-cap raspberry and gather honey from both ; and from our sweetest and best grafted apple-trees to the green, bitter, wild crab. Because bees and insects do go helter-skelter among the flowers, we are always budding and grafting, and are never sure of any of our fruits that come from the seed. To prove this, let any one take some flour and stand among the red and black-cap raspberries where they grow close together, when the bees are roaring around them ; put some flour on a bee's back, and then watch it go from blossom to blossom. I think it must convince the most skeptical of two things : First, that bees work on different species ; and, second, the bees know nothing, and care less, about the good of the species. I say it is not true that bees work on the same species while on a trip after honey or pollen. I claim much more than this. They work on the flowers of different families. To prove this, go into a garden of flowers during a dearth of nectar, and watch the bees go from flower to flower. They will fumble around among the petals of any blossom that contains either pollen or nectar, mechanically and indiscriminately.

The January Number of the *Bee-Keepers' Magazine* has just come to hand. It contains an apology for being so tardy, and an announcement of its sale to the *Bee-Keepers' Advance*. Brother Aspinwall bids us all "adieu" in language as follows :

It is not without many sighs of regret, we say good-bye to our many readers, yet we feel it is our best course....The irregularity in appearance each month has worried the editor much, but the honest truth is that he has not had the time to devote to the work required of him as editor, proof-reader, advertising agent, subscription clerk, and many times, mailing clerk.

Shake hands, brother editors, of the agricultural world ; we say good-bye with no feelings of malice towards any of you. Certain it is we have had tilts occasionally, but there was no malice on our side, only a belief in our being in the right ; a simple difference of opinion.

Lastly, to our many readers, we must sorrowfully bid adieu—may God bless you all.

We wish the retiring editor success in his new vocation (at Washington, we believe), and hope it will be more pleasant and profitable than publishing the *Magazine* has been to him.

Catalogues for 1889 are on our desk from—

W. H. Norton, Skowhegan, Maine—1 page—Comb Foundation.

Wm. H. Bright, Mazeppa, Minn.—20 pages—Bee-Keepers' Supplies.

S. H. Colwick, Norse, Texas—4 pages—Bees and Queens.

Lewis Roesch, Fredonia, N. Y.—6 pages—Grapevines, Small Fruit, etc.

GLEANS OF NEWS.

Mr. Robinson, the one whose attack on the Rev. L. L. Langstroth was noticed on page 835 of our last volume, is so completely answered by Mr. Langstroth in the January number of the *Bee-Keepers' Magazine*, that he can offer no excuse even for his vile attacks on that gentleman.

Mr. Langstroth, after copying two articles entire from the AMERICAN BEE JOURNAL for 1881, on the subject, giving details, facts, and figures to disprove Mr. Robinson's bold assertions, quotes his letter to Mr. R., dated Feb. 26, 1881, the last paragraph of which reads as follows:

> Now, friend Robinson, from all I have ever known of you, I must think that you are a man who desires to do what is right. Weigh well what I say, and if convinced that you have fallen into error, I feel confident that you will do what is fair and honorable for all parties in this matter.
>
> Very truly your friend,
> L. L. LANGSTROTH.

Mr. Langstroth then argues the matter as follows:

I received no reply to this letter, and I have seen nothing further from his pen about this matter until I had read his *Magazine* article; from which it appears, that he not only insinuates charges of bad faith against Mr. Parsons, but conveys the impression that he regards me as a joint conspirator with him.

Now, Mr. Editor, the plain English of all this is, that Mr. R. insinuates that Mr. P. stole bees belonging to other parties, and that we then engaged in the business of selling queens, bred from his stolen property! and he further wishes the public to believe that my statements as an eye witness to the facts are unworthy of credit. Can Mr. R. expect to find any credence given by honorable men, to such insinuations?

As, however, he singles me out for a *direct* charge, viz., that while my motto on paper is, "'Give honor to whom honor is due,' I have signally failed to practice what I have preached, and I have tried to rob a dead man of honor justly due him," I must ask a little more space to reply to this accusation. For what Mr. R. quotes and refers to as authority for his insinuations and charges, it would seem that he had access to all needed sources of information, and has therefore no valid excuse for the mistakes he has made.

In the March number of Vol. I, of the AMERICAN BEE JOURNAL, page 69, I am reported as saying to a convention that met in Cleveland, O., on March 15, 1880, "Last fall, Messrs. Wagner, *Mahan*, and myself had imported a few colonies of these bees, *and this was prior to the importations of Mr. Parsons and the Patent Office.*" Does this look as though I wished to suppress the credit which belonged to Mahan and the Government for priority to Mr. Parsons?

Besides, my article in the AMERICAN BEE JOURNAL, from which Mr. R. quotes, declares plainly that Mahan's bees were on board the same steamer (in his own charge), that brought the bees for Wagner & Co. As regards Mr. R's attempt to make me guilty of "an outrage in attempting to wrest from Mahan the credit due to his enterprise," it seems to me hardly to deserve any serious notice.

We both admit that there was a struggle between two parties, as to who should have the honor to put ashore from the same steamer, the first Italian queen-bee. Neither of us pretends to have been an eye witness to the scene. Mr. R. gives his hearsay version of the affair, and I give mine. If the German captain was able to gratify his pride, not only in having the first Italian bee imported into this country, in his own steamer, but to be able to say that he brought the first living queen ashore, it does not detract one iota from the merit due to Mahan, as being the first person to make a special voyage to Europe to procure this valuable bee.

Mr. P. G. Mahan was one of the most skillful manipulators of bees I have ever known, and his name is honorably mentioned a number of times by me in my work on the "Honey-Bee," for new and valuable observations. More than this, in my history of the importation of Italian bees, which Mr. R. criticizes so severely, it plainly appears that while all the queens imported by Colvin & Co., in 1859, died before the next spring—and while only one queen with a handful of bees survived to Mr. Parsons, Mr. Mahan had so distanced all his rivals, in preserving and breeding from his importation, as to be able to supply me with American bred specimens of the Italian variety. L. L. LANGSTROTH.

Dayton, Ohio, Dec. 18, 1888.

Commenting upon the above, the editor of the *Bee-Keepers' Magazine* remarks thus:

Mr. Robinson, in a recent article, was very severe in his criticism of Rev. L. L. Langstroth. He made direct charges of bad faith against the latter, as well as Mr. Parsons, and we are glad that Mr. Langstroth has so carefully cleared up this matter, not in a spiteful manner, but by a statement of facts which can hardly be gainsaid. We believe in getting at the root of everything, and do not believe in hampering what might be the truth, by our personal opinion of an individual.

We are glad that Mr. Aspinwall, before retiring from the field, has done justice to Father Langstroth, by frankly calling his reply "a statement of facts which can hardly be gainsaid," which has "carefully cleared up this matter," etc. It has always been as clear as the noon-day sun to every one who wanted to know the truth.

The Annual Crop Report of the Department of Agriculture, just issued, shows that there is a larger aggregate product of cereals than has ever before been recorded. It will amount to about 3,200,000,000 bushels or, fully fifty bushels per head. This is about three times the average supply per capita of Europe from home production, and receipts from other countries amount to only about one bushel per head. The aggregate potato production is about 200,000,000 bushels. The wool clip of 1888 was slightly reduced in consequence of the reduction of flocks in Texas and elsewhere. The estimated product is 269,000,000 pounds. The meat supply has been very abundant.

The area of maize, as estimated for the crop of 1888, makes an increase of 3,280,043 over the crop of 1887 and 13,304,259 acres over the 1879 census, indicating a gain of 21 per cent. in nine years. The estimate of wheat area makes a reduction of 305,645 acres from the breadth of 1887. The aggregate is 37,336,198, an increase of only 1,905,805 on the area of 1879, or a little more than 5 per cent. The exports will probably be less than those of 1879-80 by at least 100,000,000 bushels, a quantity more than ample for the annual supply of all the increase of population since 1880. There appears to be a further increase of the area of oats, amounting to 1,077,376 acres, or about 41,000,000 bushels increase in the quantity produced. The yield per acre is 26 bushels against 254 bushels in 1887.

The Dog and the Bees.—A dog being annoyed by bees ran, quite accidentally, into an empty barrel lying on the ground, and, looking out at the bung-hole, addressed his tormentors thus:

"Had you been temperate, stinging me only one at a time, you might have got a good deal of fun out of me. As it is, you have driven me into a secure retreat; for I can snap you up as fast as you come in through the bung-hole. Behold the folly of intemperate zeal."

When he had concluded, he awaited a reply. There wasn't any reply, for the bees had never gone near the bung-hole; they went in the same way as he did, and made it very warm for him.

The lesson of this fable is, that one cannot stick to his pure reason while quarrelling with bees.—*Scl.*

Laughing.—Mr. C. Osborn, of Danville, Ind., on March 9, 1889, sends us the following:

> DEAR SIR:—Could you afford to reprint in your valuable BEE JOURNAL Mr. Secor's "Removing Bees from the Cellar," and "What is the Use of having Friends," etc., for the special benefit of the bee-keepers of this vicinity? We have been two years without honey, and are so blue that we never laugh!

Oh! yes, we might reprint it sometime, as soon as we find room. It will help us all to "laugh and grow fat,"—grow more amiable and jolly as the years go around. It will never pay to be *blue* and melancholy! Never.

The April Number of *Frank Leslie's Sunday Magazine* is unusually rich in illustrated articles of present interest. Among them may be mentioned "American Engineers in Angola," by David Kerr; "Duluth and Environs," by William H. Ballou; "Through the Alleghanies on a Locomotive," by H. W. De Long. Easter coming in April, there are some poems referring to that festival, and an article and illustation on "Lily-Culture in Bermuda." Dr. Talmage's sermon is on "Easter Blossoms," and the music page is devoted to an "Easter Carol," by Arthur Henry Brown. The number also contains much interesting miscellany.

Bee-Killers (*Asilus Missouricnsis*), Armed-Flies, Crane-Flies, Gad-Flies, Etc.

QUERIES & REPLIES.

Honey-Extractors—Comb Honey vs. Extracted

Written for the American Bee Journal

Query 620.—1. In making an extractor for the Langstroth frame, should the frame stand on its end, or hang by the top-bar? 2. Which is the most profitable to produce, comb honey at 15 cents per pound, or extracted at 10 cents per pound?—W. S.

1. It should stand on the end. 2. Extracted.—WILL M. BARNUM.

1. Perhaps on the end. 2. I do not know. May be extracted. — C. C. MILLER.

1. Let the frames stand on their ends. 2. Extracted honey, if you have to ship to a market.—P. L. VIALLON.

2. Extracted, if you can dispose of it at that price.—H. D. CUTTING.

1. It should stand on its end. 2. At those prices, the profits would be about equal.—J. P. H. BROWN.

1. On the end, as the size is less, and the extractor is cheaper. 2. For the average man, extracted; for the expert, comb honey.—A. J. COOK.

1. The frame should stand on its end—otherwise the extractor will be too large around. 2. I think that there is not much difference.—E. SECOR.

1. It should stand on the end. 2. If equally easily sold at those prices at wholesale, I should have little choice, and should allow my taste to decide.—R. L. TAYLOR.

1. Let the frame stand on its end. 2. Extracted, by all means; for the labor is less, and the yield much greater.—DADANT & SON.

1. It should stand on the end. 2. It will depend something upon the locality; ordinarily there would be little difference, I think.—MRS. L. HARRISON.

1. It should stand on its end. The honey is more easily thrown out when the frame is put in top downwards. Hanging by the top-bar is the worst position. 2. Extracted at 10 cents per pound.—M. MAHIN.

1. The Langstroth frame should stand on the end in the extractor. 2. Personally I prefer to produce comb honey at the same price as extracted, and as long as I could get 5 cents more per pound for it, I should not lose any sleep figuring on it.—J. M. SHUCK.

1. If you wire the frames, they should stand on the end. 2. Extracted honey at 10 cents per pound, for me. —J. M. HAMBAUGH.

1. It should stand on the end. 2. In some localities, comb honey, and in others, extracted. If one could be sold as readily as the other, extracted would be the most profitable.—A. B. MASON.

1. It should stand on its end. 2. It will depend upon the season and yield, and the experience of the operator, and the demand for honey. With me, I can do better with extracted boney at 10 cents, than comb honey at 15 cents. Others can do better the other way. Try each plan, and see for yourself.—J. E. POND.

1. I do not think that it makes any difference how the frame goes into the extractor—at least I could never see that it did. 2. If each kind sells in about the same length of time in your market, one would be about as profitable as the other.—G. M. DOOLITTLE.

1. I prefer the frame to stand on its end, and to swing towards the bottom-bar of the frame; for the reason that cells incline upwards, and the honey is more easily thrown out. 2. If I could sell extracted honey readily by the keg or barrel, I think that I should say extracted. With me, however, it is very slow sale, and I prefer to produce comb honey, for which there is usually a good demand at 15 cents or more.—C. H. DIBBERN.

1. My extractor takes the frame standing on its end, and I would not have it otherwise. 2. It is most profitable to me to produce both liquid honey and honey in the comb. It would depend upon the readiness of the sale of the one or the other article. If there could be any reason why I should decide to produce all my crop in one or the other form, at the prices you mention, taking one year with another, I would risk the honey-extractor.—G. W. DEMAREE.

1. There are advantages in both ways. If you have plenty of material, ample room in your honey-house, and propose to extract a great deal of honey, then I would advise you to take the combs—well, there are advantages both ways, and I do not know which I would choose. 2. It all depends upon the color of the honey taken from your fields, the strain of bees you keep, what you know about the production of the different kinds of honey, and your market. Usually the proper answer would be, "Extracted honey."—JAMES HEDDON.

1. Usually it stands on the end, and it is just as well. 2. At the prices quoted, the profits would be about equal. —THE EDITOR.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

Swarms.—John McKeon, Dryden, N. Y., on March 2, 1889, writes thus:

A favor will be conferred if Messrs. J. E. Pond, R. L. Taylor and G. W. Demaree will please answer the following questions: 1. Is it a violation of the Sunday law of New York State, to hive swarms on Sunday? 2. Has a person a legal right to go on the premises of another to get a swarm off of a tree, or other place, if no damage is done?

By request, those mentioned in the query, have answered as follows:

1. No, it is not.

2. Consent must be obtained to go upon another's land for any purpose. Otherwise trespass is committed.—J. E. POND.

1. Works of "necessity and charity" are expressly excepted from things forbidden to be done on Sunday. To hive a swarm of bees is a necessity, as much as to take out a "beast fallen into a pit," and therefore is not a breach of the law.

2. No. If the swarm is his own, and he has followed it, keeping it in sight, he has the same right to take it that he would have to follow his horse on the land of another, and take it. To do so in either case, would be a trespass, if without license from the owner of the land, express or implied. See Goff *vs.* Kilts, 15 Wend., N. Y., Rep. 550.—R. L. TAYLOR.

2. I believe that the Sunday law of the State of New York is very nearly like that of this State (Kentucky)—all work is forbidden except "works of necessity." From my earliest memory the hiving of swarms of bees has been regarded "work of necessity" by the best men I ever knew. It is therefore not a violation of law to hive swarms of bees on Sunday.

2. According to the "common law," if you keep in sight of a swarm of bees and they "settle" on the lands of a neighbor, you may take the bees without violating the law, if you do not damage the owner of the land. But if your neighbor was at enmity with you, and should forbid you to go on his premises, you then might resort to law in an action for the possession of the bees, by what the law books call "claim and delivery," and you ought to recover them. In accordance with the principles of law, bees may be removed just like other property, if they can be certainly identified.—G. W. DEMAREE.

Simmins' Non-Swarming System, and the AMERICAN BEE JOURNAL for one year, for $1.25. The subscription to the BEE JOURNAL may begin now.

CORRESPONDENCE.

NATURE'S WAY.

Are we Going Against Nature in Working for Comb Honey?

Written for the American Bee Journal

BY G. M. DOOLITTLE.

When I first began bee-keeping, the sections or honey-boxes were not like those of the present day, as a part of them were made to hold 15 pounds, while the smallest boxes then in use in this locality held fully 6 pounds. Some of these boxes had glass sides, while others had only a small piece of glass over an auger-hole, so that the owner of the bees could see through this glass to tell when the combs were completed, or when the honey was ready to take off; for, when these combs were sealed next to the glass, the whole of it in the box would be so, as a general rule.

In these boxes we frequently found brood and pollen, even when a hive as large as 2,300 cubic inches was used, and many wondered why the queen would go above to lay, when there was apparently plenty of room for her below. The reason for this, as I look at it, is that new comb is being built above, which is generally of the drone size of cells, where the bees have their own way in building it, which, with the desire of the queen to be where the bees are the most active, causes her to go into the surplus arrangement to lay.

Some seem to think that this trouble of brood and pollen in the surplus apartment of the hive is something that comes by our working against Nature in these latter days, caused by the contraction of the brood-chamber, which is done by many of our leading apiarists; but this is a mistaken idea, for I found more brood and pollen in my comb honey years ago, before I ever contracted a hive, than I have since, where no queen-excluding honey-board was used.

As time passed on, the thought originated in some enterprising bee-keepers' head, that honey would sell better if stored in still smaller boxes than those weighing 6 pounds, so we soon had the 3-pound box. This box was used in the same way as its predecessors had been, namely, with glass sides, while it was made long enough to hold only one comb, which comb was about 2¼ inches thick when completed. With this box I had very little success, for the bees seemed very loth to work in it, and when they did so, they would frequently try to put in three combs, which made it in very poor shape for market. For this reason I decided that it was not in accord with the nature of the bees to be cut up in so little clusters, and have their combs as thick as 2¼ inches. Consequently I went back to the 6-pound boxes again, leaving it to others to work the smaller ones as they pleased.

When the 2-pound sections with separators were introduced, I considered them as being still worse than those preceding them, for the bees were divided into still smaller clusters than before; at least this was my first thought. One night, while lying awake thinking on the subject, I believed that I saw a difference between this way of using small boxes and the old way, where glass was used on both sides of the box; for in using separators, the bees were not, properly speaking, divided into little clusters, but virtually had one box of the size given by the number of sections used in one tier, which was generally twice the amount of the 6-pound boxes; for as the tin did not come within ⅜ of an inch of either the bottom or top of the sections, the bees and warm air could pass from one to the other just the same as if no tin was there. But there was so small an entrance that I feared this would be a hindrance to the bees coming up in the sections to work to good advantage, and in order to overcome this, I left the bottom off of all those first used, so that I might not meet with a partial failure, as I had done with the 3-pound sections or "boxes," as all such were termed at that time.

My yield of honey from colonies in these hives was greater that fall than from the other hives, which went far more toward convincing me that this plan would succeed better than anything else could; but I found that in leaving the bottom of the sections off, I had gotten into a job which I did not care to go through with again, and, beside, in using the tin separators so narrow that ⅜ of an inch was left both above and below them, I had a bad job here also, for the bees built through here so that the combs were mashed in putting on the glass afterward.

Although still fearful that I might lessen the yield of honey by putting on the bottoms of the sections and widening the tin, yet I resolved to try, so the next season found me putting sections on a few hives, the same as I use them now, while the rest of the apiary was worked with the 6-pound boxes as heretofore.

At the end of that season I found that the colonies having the sections with separators, gave me the largest yield, and the combs in these sections were simply perfect; while many of those in the larger sections were far from being so. These sections had a comb about 1⅜ inches thick, which thickness the bees seem to prefer for storing honey, although they can be made to use either of those thicker or thinner. The entrance to the sections also seemed ample, and by a little figuring, I soon saw that the ¼-inch space between each section was greater as a whole than the entrance given to the larger box.

When the next season came, I worked about half of my bees with sections, and the other half with the large boxes, thus using caution when starting out on something new, as I always think it advisable to do. The result of that season proved the same as that of the seasons before, so that I then adopted sections entirely, and firmly believe that such an arrangement does not inconvenience the bees in the least, over what they would be in a box of the same capacity without separators.

When the queen-excluding honey-boards came before the public, I tried them slowly, as I did the sections, using more and more with each year, till to-day I am fully prepared to say that none of these things are of any inconvenience to the bees. Only in this way can any one fully say what is good, and what is not; for the condemnation of a thing without using it, amounts to nothing. The old injunction of "prove all things, and hold fast to that which is good," is as valuable to-day as it ever was.

Borodino, N. Y.

MANAGEMENT.

Putting Bees Out of Cellars—Spring Methods.

Written for the American Bee Journal

BY MISS IDA L. SMITH.

The best time to take a retrospect of any line of action is after we have passed through it, and by our failures in the past we are able in a degree to avoid the rock upon which so many are wrecked. In apiculture, as in many other pursuits, to avoid failures many of our plans have to be laid, reaching far ahead. It is not in the management that prepares the strong colonies for the honey harvest, that an apiarist shows his skill, but in getting the weak colonies strong, and ready to go into the sections.

Apiculture is a continuous chain the year around, each part of a season depending upon the preceding, so that entering upon spring management of bees we will presume that everything has been done in the proper way, and at the right time; we will especially assume that the bees have been win-

tered in a cellar, and everything surrounding them, and the care, was such that there has been no loss of vitality other than would result from age.

In this latitude the time to carry the bees out of the cellar is usually from April 20 to May 1. In removing bees from the cellar, a time should be selected that has the appearance of several warm days together. A little ingenuity can be used in devising plans for carrying them out, that would be the least fatiguing. The work should begin as soon as the sun is sufficiently warm in the morning, for the bees to commence their cleansing flight almost as soon as they are placed on the summer stands.

The following arrangement I like: Height of the hives from the ground, not less than 4 inches; first row 6 feet apart, facing the east; the second row facing the south, and about 2 inches from the rear of the first row; the third row is 6 feet from the second, and opposite the spaces in the first and second rows (so that the morning sun will shine in the entrance), and so on.

In this climate as late as May 20 we often have cold weather sufficient to chill the brood, and entirely stop brood-rearing, for which reason spring protection of some kind ought to be used. The lumber in boot and shoe boxes answers every purpose, to make rims for the hives 18 inches deep, and 2 by 3 feet; the covers should be water-tight, and they will also answer for shade-boards in the summer if needed.

For the packing to fill in between hives and the rims, sawdust, fine hay, or chaff is very good, using small blocks to keep the entrances free.

Before packing, and after the bees have had their flight, see that they have plenty of stores to stimulate brood-rearing; those that have not, mark it in a record-book, to be fed, and if any are found queenless, unite them with a colony having a queen. It is well to leave the packing on until the time to put the cases on.

Now is the time to get the hives ready for the summer. The cases, sections, foundation, separators, smoker, and the swarming-box, should all be in readiness when the honey harvest begins; and last, but not least, the bee-veil should have attention.

Every apiarist should rear queens to have them ready for the swarming season, as no apiarist can afford to have a colony queenless during the honey-flow.

See that your bees have water, if you are not near a river or small stream.

My tools consist of a long screw-driver, a large knife, and a scraper.

Darlington, Wis.

COMB HONEY.

Some Practical Thoughts on Its Production.

Read at the Maine Convention

BY L. F. ABBOTT.

Given a certain number of strong colonies of bees in the spring, how shall they be worked to produce the largest amount of comb honey? This question is not so easily answered as it might at first seem to be; but ordinarily I believe it profitable — the honey-flow of course being good—to let one swarm issue, allowing the parent colony to rear a queen, destroying all but one of the queen-cells about the fifth day after the swarm issues. Previous to swarming, however, when seven or eight frames are well filled with brood, and the bees seem disposed to build bits of comb in all available spaces, the time has come to put on surplus cases.

Now we will say that five colonies are each in seven frames, and ready to receive sections for the storing of surplus honey. The season is now advanced, and weather warm, so the brood we have to take from the hives to reduce the brood-nest will not suffer from exposure. Each hive is opened and reduced to six frames, leaving the best filled with brood and eggs. Those frames taken out may be placed in a hive with a portion of young bees adhering to the combs, and form a new colony. At the expiration of a couple of days, a laying queen may be given this colony—ordinarily she might be introduced at once—which will be ready in three or four weeks, or so, for a section-case, and will send off, probably, a young swarm, which should be made to stay at home, or equivalent to that, of which I will have more to say about subsequently.

Shaving the Combs.

The old hives now have six frames which should be carefully shaved, over the portion containing honey, to $\frac{7}{8}$ of an inch, and spaced in the hives to bee-space—$\frac{3}{8}$ of an inch. If the frames are fixed with reversible attachments—as I would have them—reverse the frames and use a dummy on each side so the surplus case will fit without leaving any open space.

Twenty-four or twenty-eight one-pound sections supplied with thin foundation are enough, and perhaps if half the number could be so arranged to place on at first, it would be better than the larger number. After these sections are all filled with comb, and two-thirds of the upper portion capped over, this case may be raised, and another case of the same size placed upon the brood-frames. A wide frame containing eight sections might be placed each side of the brood-frames, —after removing the dummies—but I should expect that they would be immediately filled with eggs by the queen.

If the honey-flow is copious, our five colonies will each send out a swarm by June 10. Hive them upon empty combs or sheets of foundation, and, if preferred, the new colony formed by frames of brood taken in reducing the old colonies to six frames when putting on the section-cases, may be drawn upon to the extent of a frame for each new swarm, replacing the frame so taken by an empty comb or foundation, which the laying queen will quickly occupy.

Restrict each colony to sending off one new swarm, and these new ones not to be allowed to swarm at all. Such first swarms will probably swarm in about four weeks. Let the swarm issue, hive in the ordinary way, place on a new stand a little distance from the former stand, and put the frames from the parent colony, bees and all, into the new hive, in the new location; place on the surplus case, and things will be likely to go on through the season without more trouble by swarming. If they do swarm out again, after a couple of weeks, put them over again, and keep them to work in surplus room.

The old colony, having all queen-cells but one removed, five to eight days after sending off, the swarm will very likely swarm again, in three or four weeks, when they, too, should be changed over as described for the others.

Objections may be raised to this plan, on the ground that if one has a large number of colonies, it is undesirable to increase as fast as this method contemplates.

In rebuttal it may be urged that, as a rule, the old colony and one new swarm issuing from it—all things being favorable—will store more honey than the old colony alone, prevented from swarming. Again, the method I have given somewhat in detail, contemplates putting only strong colonies into winter quarters. Reduce the number of colonies by doubling up at the end of the honey harvest; make sales of colonies according to value, reserving the best for yourself, as you would select your sheep and lambs, keeping the best yourself, and turning the inferior ones to the butcher at what they will bring.

But this course of allowing the old colonies to cast a swarm need not be followed, if one is satisfied with the product of that. By running over the

combs and changing to new locations two or three times, the increase probably would be largely checked, if not entirely prevented.

Increase of Colonies.

If one has but a small number of colonies, and wishes to increase as fast as possible, and yet get as large amount of surplus comb honey as possible, I know of no better plan than the following:

We will say the apiarist has four colonies; by the methods I have given, encourage breeding in the spring, and when the time arrives for putting on surplus cases, contract the brood-apartment to five or six frames, shaking off nearly all the bees from the frames removed, and place them in a hive with a laying queen. Shave all brood-combs to ⅞-inch, and space them to ⅞ of an inch. When the old colonies send off new swarms, capture the old queen and return them to their respective hives, supplying their places in the new colony with young, laying queens, which can be introduced at this time without much danger. Remove all queen-cells from the old colony, to prevent after-swarms, and let brood-rearing proceed. By this method, in a good honey-flow, colonies may be increased very fast, and a good amount of surplus honey be obtained.

The plan of shaving the combs to ⅞-inch thickness, and spacing the frames to a bee-space, I believe to be of considerable importance. The idea was not original with me, but as far as I know, to Mr. E. P. Churchill belongs the honor of first giving this method to the bee-keeping world.

Using the Extractor.

Can the extractor be used to advantage in running an apiary for comb honey, by extracting from the brood-frames when putting on the surplus cases? This is a question I am not fully prepared to answer either way, and certainly not in the negative. I have used the extractor in that way, and thereby secured a good amount of honey, but it is generally a mixture of fruit-bloom and clover honey, neither one nor the other.

On the whole, I am not sure but as good results will be obtained by letting the honey remain in the combs, when manipulating the hives for the surplus cases. The theory is, that in shaving and spacing the combs and reversing them, the bees will carry the honey from the brood-frames and deposit it in the sections. I am inclined to think that this is generally true. Then if one cares for sameness in quality of his comb honey, it is better to extract the mixed honey, and secure the virgin article from the clover bloom.

Lewiston, Maine.

BEE-CELLAR.

Wintering Bees in the Cellar—Experience.

Written for the American Bee Journal

BY A. D. LORD.

I am located two miles from any timber land, having commenced in the spring of 1887 with 3 colonies, and increased them to 7, which I wintered in the cellar under the house. There was plenty of bees in the spring, but some of the colonies dwindled to a mere handful, and I only saved them by buying a few by the pound and giving some to each colony. They were slow in building up, but increased again in 1888 to 18 colonies, and I took 250 pounds of comb honey.

I put in the bees on Nov. 8, and each colony was weighed, so that I might know just the amount of honey that it takes to winter them. They have lost in weight up to the present time (Feb. 26) from 2½ to 4 pounds each.

I will endeavor to give a description of my bee-cellar:

I commenced by digging 5 feet into the ground, then setting up studding 7 feet high, and ceiling it all around as tight as lumber could make it. It has two doors to pass in and out, and it is 8x12 feet, with a ventilator at each end.

Before putting the bees in, I took a section of the hive, and putting a piece of cotton cloth over the bottom and filling it about 3 inches deep with oats, to absorb the moisture, which, I think, has done well, for the bees are perfectly dry all the time. The temperature has been from 34° to 40°, and they seem to be perfectly quiet all the time.

I have carefully scraped up all the dead bees, and they weigh 1½ pounds at the present time.

Amiret, Minn.

FEEDING BEES.

What and How to Feed During a Mild Winter.

Written for the Prairie Farmer

BY MRS. L. HARRISON.

Bees during a mild winter, like the present, consume more honey than in a cold one. When they are often upon the wing exercising, they require more food than during a cold winter when they are in a semi-dormant state. Bees store their pollen or bee-bread in the base of the cells, and fill up with honey. When they have consumed the honey, they will rear brood in the center of the cluster, the nurse-bees eating the bread so as to give milk to the young, or, in other words, feeding it to the young half-digested, as the pigeons feed their young. These little patches of brood in the center of the cluster are a wise provision of nature against the loss of the queen, for as long as they have eggs or larvæ not over three days old, they can rear another queen or mother bee.

As the drain upon the bees' stores has been excessive, owing to the mild weather and consequent activity of the bees, the owners of colonies, whether few or many, should not let them starve. If he does, he loses not only the bees, but all the honey they had in the fall. Bees consume their stores very rapidly in the spring while rearing their young, for scientists tell us that insects during their larval state consume more food than during the remainder of their lives.

Honey as Food for Bees.

Honey is their natural food, and nothing else is to be resorted to when it is to be had. Large apiaries usually have in store dark honey that is not salable, and broken or partly-filled comb, which can be utilized in this way. I have a few two-pound sections, in which the queen laid and drones were reared, discoloring them, rendering them unfit for food, and these I shall use as feed for bees, turning them down over the cluster.

I do not advise feeding bees in early spring, except to prevent starvation, for it arouses them to activity, and they will try to rear more brood than they can cover; and let the weather turn suddenly cold, contracting the cluster, much of it will perish. More young queens will be reared by feeding, but it will be at the risk of the lives of the old bees, for it is a severe draught on their vitality, preparing their food; they also fly out for water on chilly days and perish. When a bee loads up with cold water it gets numb, and cannot return home. If the old bees die off faster than the young ones are able to take their places, the colony must ultimately perish.

Making the "Good" Candy.

This candy was the invention of a prominent bee-keeper, whose name it bears, and is made as follows:

Heat liquid honey until hot, but not up to the boiling-point, and stir in confectioners' sugar until it will absorb no more, when it can be made into cakes with the hands. This candy will not be sticky, yet keeps soft and moist, so that bees can feed from it.

A cake of this candy could be slipped down into the cluster and save a colony from starvation, and yet not arouse them to undue activity, as the feeding of liquid honey or syrup would do.

The Feeding of Syrup to Bees.

This should be used only as a forlorn hope, when the bees' natural food is not to be had, for a laborer is worthy of his hire, whether a bee or a human being. It is not particular what kind of sugar is used for making syrup in the spring, when the bees can fly every few days; but, in the fall, nothing but the very choicest will answer.

I generally pour boiling water upon the sugar in a pitcher, and stir it up with a spoon, making a thin syrup, which I feed warm. The undissolved sugar will settle in the bottom, and it should be allowed to settle, for it will harden in the feeders, and become bothersome.

Feeders and Robbing.

I have many different kinds, and use them according to time, place and condition. If I desire to feed liquid honey or syrup when it is cool weather, and am desirous of keeping all the warmth possible in the cluster, a one-pint Mason jar, with a perforated cover, answers the purpose admirably, as it can be turned over a small hole, and the bees take it through the perforations. I have tried the quart jars in the same way, but the result was not satisfactory in my hands, for the syrup came down faster than the bees could take it, and it would run from the hive and be wasted. It needs to be set perfectly level, and then it will not run out.

Wooden vessels answer the purpose much better for feeders than those having a smooth surface, like tin, glass or earthen-ware. If a tin or glass vessel should be filled with liquid honey or syrup, and be accessible to bees, in a very short time they would be a writhing, struggling, drowning mass; while, if the same quantity were in a wooden vessel, every bee would get out.

Bees appear to be able to take a grip on wood, which they cannot do on other surfaces. Small wooden-bowls, or butter-dishes, if they do not leak, make good feeders. I once showed to a bee-keeper a feeder that was cut out of wood, by a wabbling saw. He said that it would get full of drowning bees. He was mistaken, however, for I filled it immediately with syrup, put it over a strong colony, and in a very short time it was clean and dry without a dead bee. Any sort of a vessel can be used, if it is filled with chopped straw or shavings.

In all feeding operations, care must be exercised lest robbing be induced. When food is placed in the upper story of a hive, if bees from the outside can gain admittance, the colony will soon be taken by storm, and stores stolen.

DIVIDING

Colonies to Secure Increase Explained.

Written for the American Bee Journal

BY J. M. HICKS.

In compliance with a promise made to the members of our Indiana State Bee-Keepers' Society, I will give my favorite method of dividing colonies for judicious increase and profit. This, of course, depends much upon the condition of the colony, which should be full of brood and worker bees, as if they were to be left to swarm in the old or natural way. This condition can readily be known in several ways, viz:

First, we usually find them quite well supplied with drones, which come out to play late in the afternoon.

Second, we can also know, by opening a hive that is full of bees and brood, with a good, prolific queen, actively laying eggs in the brood-frames; also quite a number of drone-cells may be found sealed over in the combs, all of which are requisite for the welfare of the future of the new colony.

We can now examine the frames of brood, and when we find the sheet or frame on which the queen is busy laying eggs, lift it carefully out, and hang it in a new hive of the same size and pattern, replacing the vacant space in the full colony with a new frame, and if filled with good empty comb, so much the better.

Now close up both hives, and move the old colony to a new location; then place the new hive with the one frame of brood and queen where the old hive stood, and you will have the satisfaction of seeing the working-force return to the new hive, and with their queen, where all will be peace and harmony, and in less than 48 hours a fine, strong colony of bees can be seen working with a will.

From the old colony made queenless (in order to make the "artificial" swarm, as above mentioned), at the end of 8 or 9 days we can with safety cut out several queen-cells and insert one or more in any other colony or colonies that may be queenless; or, if desirable, other new colonies can then be made by taking a frame or two from strong colonies, and thus re-queen all new or "artificial" swarms, saving much valuable time. Always leave one or two queen-cells in the old colony, that they may hatch and rear a queen for themselves.

I would further add, that it will be better by far to save all of the best empty or old combs in order to refill empty or new frames for the bees, thus saving much precious time for the bees, as well as many pounds of the best honey, which is always gathered in the forepart of the season. Look well to the bees!

Indianapolis, Ind.

BEE-CULTURE

Considered as a Branch of Agriculture.

Read at the Illinois Farmers' Institute

BY G. A. GROSS.

There is probably no branch of farming so generally neglected and so little understood as that of bee-keeping. If it cannot be said of every farmer, that he can keep bees successfully, still there are many that with a little intelligent care could cause their bees to make a welcome addition to their income.

It is not an occupation that is restricted to men only—many a farmer's wife or daughter would find it a fascinating pursuit, as well as an easy way of being independent of "father's pocket-book;" for the work is not hard, nor does it demand one's whole time. One daily visit to the hives, taking only a few minutes, a little extra watching at swarming time, the putting on and taking off of sections—this certainly is not work that will overtax a woman's strength. All over our land are found women who rank among the most successful apiarists.

I have frequently heard the remark, that this is not a good country for bees, and until six years ago I would have heartily endorsed that opinion, for I had kept bees for 18 years, and never had much success with them. Finally I lost my last colony, and came very nearly giving up the pursuit. But at that time I read an article about the modern improvements in bee-keeping, became interested again, sent for a book describing the new way of handling bees, bought one hive, and started anew, trying to take the best care of the bees. As a result, at the end of four years I had 70 colonies, had sold considerable honey, and two years' more work with the bees, has confirmed me in the opinion that our county is as good a place to keep bees as any in the United States, with the exception of California.

With our variety of flowers, coming as they do at intervals during the summer, we possess a great advantage over the northern part of our country which is celebrated for its large yields of honey.

In this county (Bond), up to Aug. 10, 1888, the season had been the poorest on record—no swarms and no

honey, was the general complaint. I do not think that my 57 hives contained more than 25 pounds of honey, and I had the prospect of feeding all my bees, but heart's-ease came to the rescue, giving us the best honey-flow I ever saw. In the five weeks that it lasted, my bees gathered over 3,000 pounds of honey. See what a loss it would have been, but for the bees. I have no doubt that for the lack of bees to gather the honey, our county suffers a loss that annually counts up in the thousands of dollars.

But there is still another reason for keeping bees, that should have a great weight with farmers—I mean the very important part which bees bear in the economy of nature in fertilizing flowers, and thus increasing the crop of fruits of every kind.

Having seen a few of the reasons why farmers should keep bees, let us consider what the bee-keeper needs to enable him to reach the best results.

First, he must understand something of the nature of bees, how they live, how they work, what variety is best to use, etc. A colony in its normal state consists of one queen, or mother-bee, several thousand workers, varying from 6,000 to 40,000, and a few hundred drones, or male bees; these last being present only at certain times of the year.

The queen is the only perfect female bee in the hive. She can easily be recognized by her size, for she is about twice as long as a worker-bee. Upon her depends the prosperity of the colony, for she is the only one that lays the eggs. Take the queen away, and the colony is doomed, unless the bees have eggs from which to rear another one.

A good queen will lay from 2,000 to 4,000 eggs a day, being more or less prolific, according to the flow of honey. The life of a queen is much longer than that of the workers, for while she lives from two to four years, a worker-bee will not, on an average, live longer than six or seven weeks; though in winter their life is prolonged from five to six months.

The drones are known by their short, thick bodies, and loud buzzing when on the wing. Their life is of very uncertain duration, lasting from a few days to a few weeks at the longest.

Italian and Black Bees.

We need only consider two varieties of bees, the common black bee, and the Italian; of these two races the latter are generally preferred. They are of more pacific disposition, and besides their good moral character, they are more industrious, working earlier in the morning, later in the evening, and on days when the black bees would find it too cold to leave their hive.

The tongues of the Italian bees are also longer, enabling them to get honey from flowers that the common bee has to pass by; and finally, their queens are more prolific.

Of the different kinds of hives used by progressive bee-keepers, all without exception have the one feature of a double story. These two stories—the brood-frames below, the cases with sections above, with the honey-board between the two, are the main features necessary for the successful production of comb honey.

How to Avoid Stings.

The handling of bees is easy to any one who is not afraid of stings; but these can be avoided, to a great extent, by the use of a veil and smoker, and by observing the following precautions:

Never go between the hives in a hurry, nor walk in front of the entrances so as to disturb the bees in their passing in and out; avoid all quick motions, all jars of the hive, and when you have any work that will neeessitate the opening of a hive, always choose a time when the bees are out at work, smoking first the guards at the entrance, then, after taking off the cover, sending a few puffs of smoke among the frames, after which you can go to work with impunity. Finally, if a bee should come buzzing about you, keep perfectly still, close your eyes, avoid breathing on it, and it will soon leave.

In writing the foregoing, it has been my aim to call the attention of the farmers to a field that has been too much neglected. In this pursuit, as in all others, to him who would succeed, four conditions are necessary, viz: He must understand it; he must love it; he must believe in it, and, last but not least, he must stick to it.

Greenville, Ills.

Convention Notices.

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at the Court House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.
H. M. SEELEY, *Sec.*

☞ The DesMoines County, Iowa, Bee-Keepers' Association will hold its annual convention in the Court House at Burlington, on April 23, 1889, at 10 a. m. All bee-keepers are invited. JOHN NAU, *Sec.*

☞ The 11th annual session of the Texas State Bee-Keepers' Association will be held in the apiary of W. R. Graham, of Greenville, Hunt Co., Tex., on May 1 and 2, 1889. All bee-keepers are invited. The last meeting was held here last May, and was the best ever held. So we look forward to a good time next May. A cordial welcome and hospitality will be tendered to all who come. G. A. WILSON, *Sec.*

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.

CONVENTION DIRECTORY.

1889.	*Time and Place of Meeting.*
Mar. 30.—Agency, at Agency, Mo.	T. S. Smith, Sec., Agency, Mo.
Apr. 23.—DesMoines County, at Burlington, Iowa.	John Nau, Sec., Middletown, Iowa.
May 1, 2.—Texas State, at Greenville, Tex.	G. A. Wilson, Sec., McKinney, Tex.
May 4.—Susquehanna County, at Montrose, Pa.	H. M. Seeley, Sec., Harford, Pa.
May 21.—Northern Illinois, at Pecatonica, Ill.	D. A. Fuller, Sec., Cherry Valley, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

Bees in Fine Condition.—T. F. Bingham, Abronia, Mich., on March 6, 1889, says:

Bees have had a series of fine sports on the wing within the past week, and are in first-class condition. Those in the cellar are in excellent condition, and as quiet as if asleep.

Good Prospects for Clovers.—Wm. G. Cory, Cason, Ind., on March 6, 1889, says:

Bees in this locality are doing well, only a few colonies having died from want of stores. I use the Armstrong Crown hive, packed with dry forest leaves, and my bees winter well on the summer stands. The prospect is good for all kinds of clover. The AMERICAN BEE JOURNAL is a welcome visitor.

Foul Brood.—A. L. Leach, Livingston Co., Ills., on March 1, writes:

My bees are in unusually good condition at the present time. I have no loss to report for this winter. The reports of individuals and conventions indicate that foul brood prevailed to an alarming extent during 1888, and three associations passed resolutions invoking Legislative aid. To me this is very absurd. I would as soon think of legislating to control the weather, which, no doubt, causes it to come and go. I have had two years' experience with foul brood, and lost 15 colonies in the early part of the winter of 1887. Last spring I purchased 10 healthy colonies, and used the diseased combs, increasing the 10 to 22. My other colonies were affected with foul brood from the previous year, and of course they all became affected. I devoted three months with various experiments in which the popular impressions of the disease had but little show; prob-

ably very many will doubt it when I say, that I can cure it with little labor and small loss, and it is not right to burn or destroy affected colonies, as it is only moderately contagious, and not liable to be carried from one place to another.

Yes; we doubt it, but are quite ready to learn the *modus operandi*, and have it thoroughly tested. But here is something later from Mr. Leach:

LATER.—Since making the above statement in regard to foul brood, I have read Mr. Baldwin's article on page 134, a part of which corroborates my experience, which has been thorough and conclusive, and which I can demonstrate to a certainty. I would have written very differently, if I had read Mr. Baldwin's article first. It was my intention to publish a full course of treatment after getting comments on my statement. My experience with bees and queens that are affected, also with old combs, is thorough and comprehensive.

Bees Wintering Well.—R. A. Rummel, Butler, Ind., on March 9, 1889, writes:

My bees are wintering well, except late swarms that did not gather enough honey to winter on. There was not much surplus honey gathered here last year, but the brood-chambers were well filled with golden-rod honey. The forepart of this week was warm, and the bees were out thick, visiting sugar orchards, but it is cold again now.

Reading Bee-Papers, etc.—D. R. Rosebrough, Casey, Ills., writes:

The white clover in this vicinity looked well last fall, and I still hope that it will not be killed; yet the weather is very hard on it at present, as we have had our coldest this month (February). What do we learn from the AMERICAN BEE JOURNAL besides bee-culture? 1. It keeps us informed as to the weather, not only in Illinois, but throughout the United States, all Europe, and Canada. 2. It tells us of the condition of the crops of the country, and the state of the health of the people. It acquaints us with hundreds of persons whom we would never know. It is a common occurrence for a man to call at my office, and speak to me as though he was a brother, and tell me it was in the BEE JOURNAL that he first saw my name. 3. It tells us the price of honey all over the country, and which of the two races of bees is the strongest—the blacks or yellow bees. The country and woods were full of bees when the yellow race was imported, and in my neighborhood, 12 years ago, when an Italian queen was first brought to this (Clark) county, her grand daughters would be black bees every time; but now that is not the case, as every bee-yard in this neighborhood has the yellow bees. Persons living five miles from Casey, who never saw a queen, have at least half yellow bees. I think that the black bees are fast disappearing, and that within another 12 years black bees cannot be found here. My bees are wintering nicely. The last summer thinned bees out in this county—the old farmers say that the moths killed them.

Warm Winter Weather, etc.—J. L. Gray, St. Cloud, Minn., on March 9, 1889, says:

My crop last year from 50 colonies in the spring, was 3,080 pounds, 2,000 pounds of comb honey, and one-fourth increase of colonies. I have 75 colonies in the cellar, but the exceedingly warm weather from Feb. 27 to March 7, taxed my ability to keep them quiet, but I succeeded very well with ice, and open doors at night.

Good Season Expected.—W. A. Hodge, Victory, Wis., on March 10, 1889, writes:

I commenced the spring of 1888 with 24 colonies of bees, mostly Italians, and I have now in the cellar 43 strong colonies, after selling 8 colonies last fall, besides in swarming time 3 swarms went to the woods. My honey crop for the past season was about as follows: One thousand one-pound sections of honey, 250 1½-pound sections, and about 200 pounds of comb honey in the old-fashioned boxes. I sold it at an average of 11 cents per pound, and I am well satisfied with the result; but I expect much better results the coming year.

Apple Bloom—White Clover.—Wm. Malone, Newbern, Iowa, writes as follows:

The winter of 1880–81 killed nearly all the bees in this county, and the winter of 1884–85 left none in box-hives and "log gums." Four neighbors living from 2 to 6 miles west of here, had large orchards, and each had from 10 to 25 colonies of bees in box-hives. The winter of 1884–85 destroyed all their bees, and the next season they had no apples. I wintered 5 colonies out of 38 that winter on the summer stands. A Mr. Crane, 1½ miles east of here, wintered 20 colonies in the cellar, and my western neighbors went to Mr. Crane for apples the following fall, as Mr. C. and his immediate neighbors had plenty of apples. When bees can work on apple-bloom, there will be plenty of fruit.

I cannot tell the exact condition of the white clover yet, but I think that it is winter-killed badly. The ground is frozen hard about 2 feet deep, is bare, and has been so nearly all winter. Bees are wintering tolerably well. I have 52 colonies in the cellar or cave, and 12 on the summer stands; the latter have consumed but little honey yet, and have had a flight about every week all winter.

Bees had a Grand Flight.—Mr. Jacob Oswalt, Maximo, O., on March 4, 1889, writes:

For the past two years the honey yield in eastern Ohio has not been more than one-fourth of a crop, and the quality of the honey was none of the best. I am wintering my bees on the summer stands in the Falcon chaff hive; they are all going to "pull through" the winter nicely. They had a grand flight to-day—I suppose they wanted to take part in the grand Inauguration Ball going on at Washington, D. C. Bee-keepers in eastern Ohio, at this writing, are not very well supplied with bee-fixtures, and if the coming summer should prove to be a good one for bees and honey, many of our bee-keepers will be caught napping.

Bee-Keeping for Pleasure.—George Hodges, Belmont, N. Y., on Feb. 25, 1889, writes:

I have noticed in the BEE JOURNAL that some one mentioned the "blood of bees" as we would speak of cattle. I have never seen any blood in bees. I have only 4 colonies, but I never keep them for profit, as I have never obtained anything except plenty of honey for my own use. I did not get a swarm last year. I think 2 swarms came out one day, and both went together, and not being at home at the time, they went to the woods, so I did not get any swarms. I often think that I will try something different with my bees, as I see so much in the BEE JOURNAL of profit in bees, but I do not get it myself. There are a great many bees kept in Belmont, but their keepers do not read bee-literature.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

Experience as a Teacher.—Mr. Christian Weckesser, Marshallville, O., on March 1, 1889, writes thus about publishing new papers :

I noticed in a recent issue of the AMERICAN BEE JOURNAL an "obituary" of *Rural Life*, a paper which I published a year. It may be proper to say that, to many persons it may seem desirable to publish a periodical, while the disadvantages and undesirable features of such an enterprise are not apparent until the papers are "on their way," when, becoming manifest, they are not properly conducted, the matter they contain may become of little utility, and finally become filled with matter that is considerably worse than useless, or misleading in some direction ; and not being profitable, great offers and inducements are given to secure subscribers, with which a paper that is carefully edited may not be able to compete, and be profitable to the publisher. Again, an amateur printer may think that the necessary expense a trifling matter. After making trial of this, I confess I am wiser, and though I have little of a pecuniary compensation for a year's hard labor, I feel well paid with experience. The transaction was honorable ; the paper was not poorly conducted—and it would probably be a credit for more publishers to have their papers consolidated, rather than to "eke out a miserable existence."

Commend Us to the Arab.

A couple of Americans meet, grab each other's hands, and you wonder how much water they have contracted to pump in five minutes. An Englishman nears a friend and they pound each other on the shoulder, while you look on nervously, wondering who will draw first blood. Frenchmen meet, and they fall to kissing each other, while you go off in a corner and feel sick. Italians fall into convulsions, while you are hunting for the doctor. The Portuguese hook their chins over each other's shoulders, as if they wanted to find which pocket holds the handkerchief, while Spaniards hug each other with tears streaming down their faces, leaving you in doubt as to who has died, but the Arab, when he meets his friend, advances toward him, they join hands in firm pressure for just a moment, and then, without a grimace or movement of the lips, raise their own hand and touch it to their lips, saying afterward: "Welcome sight." The whole thing is done with dignity that is thoroughly manly, and yet with a hint of tenderness that is nothing less than beautiful.—*Boston Transcript.*

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Don't Fail to Read A. J. King's advertisement on page 190.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents ; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

Honey and Beeswax Market.

SAN FRANCISCO.

HONEY.—We quote : Extracted, white, 6½@7 cts.; amber, 5½@6c. Comb, white 1-lbs., 13@14c.; 2-lbs., 10@12c. Demand for extracted is good ; for comb, limited. Prospects are not as good for honey as in 1888.

BEESWAX.—Scarce, at 18@22c.

SCHACHT, LEMCKE & STEINER,
Mar. 15. 16 & 18 Drumm St.

SAN FRANCISCO.

HONEY.—White comb, 10@11½c.; dark, 6½@8c. White extracted, 6½c.; light amber, 5¾@6c.; dark amber, 4½@5½c.

BEESWAX.—18@22c.

Jan. 25. O. B. SMITH & CO., 423 Front St.

BOSTON

HONEY.—We quote : Best white clover 1-pounds, 18@20c.; best 2-lbs., 18@18c. Market is very strong and stock of white comb honey is very light.

Mar. 9. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 16@17c. Sales slow. Extracted, 9@10c.

BEESWAX.—22@23c.

Feb. 11. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote : White clover 1-lbs., 16@17c.; 2-lbs., 14@15c. Good dark 1-lbs., 13@14c.; 2-lbs., 12@13c. Buckwheat 1-lbs., 13@14c.; 2-lbs., 11@11½c.—Extracted, 6½@8½c., depending upon quality and style of package. Market dull and stock sells slowly.

BEESWAX.—22c.

Jan. 24. S. T. FISH & CO., 189 S. Water St.

ST. LOUIS.

HONEY.—Choice white clover comb, 13@15c.; fair 11@12c.; dark, 8@10c. Extracted, dark, in barrels, 5@5½c.; choice, 5½@6c.; in cans, 6@7½c. Market is quiet but steady.

BEESWAX.—20c. for prime.

Jan. 17. D. G. TUTT & CO., Commercial St.

CHICAGO.

HONEY.—Best 1-lbs., 17@18c. Extracted, 7@9c. for best quality, according to body, flavor and style of package. Trade is limited to local consumption. Off grades of comb honey are slow at lower figures than given above. But few will buy dark comb.

BEESWAX.—22c. K. A. BURNETT,
Jan. 17. 161 South Water St.

MILWAUKEE.

HONEY.—We quote : Fancy white 1-lbs., 17@18c.; 2-lbs., 15@16c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c.; fair 1-lbs., 12@14c. Extracted, white, in kegs and ½-barrels, 8½@9c.; amber in same, 7½@8c.; in pails and tin, white, 9½@10c.; in barrels and ½-barrels, dark, 5½@6c. Market dull. The very best sells slowly, and inferior qualities are neglected very much. Damaged, broken and leaky comb honey not wanted.

BEESWAX.—22@23c.

Jan. 10. A. V. BISHOP, 142 W. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@15c. Demand is better for dark extracted, which is scarce.

BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.

Mar. 11. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—White 1-lbs., 16c.; fall, 14c.; California 1-lbs. 16c.; white 2-lbs., 14c.; extra 2-lbs., 13c. Extracted, white California, 8c.; amber, 7c. Market dull.

BEESWAX.—20@22c.

Jan. 22. CLEMONS, CLOON & CO., cor 4th & Walnut

KANSAS CITY.

HONEY.—Choice 1-pounds, 15@16c.; dark 1-lbs. 12c.; 2-lbs., 14c.; dark, 11c. White extracted in 60-lb. cans, 8c.; amber, 7c.; in barrels and kegs, 5@8c. Demand good, prices steady, and stock large.

BEESWAX.—None in market.

Jan. 4. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—White, in 1-lb. sections, 15@16c. Extracted, 9@10c.

BEESWAX.—20c.

Jan. 1. J. M. CLARK & CO., 1409 Fifteenth St.

NEW YORK.

HONEY.—We quote : Fancy white 1-lbs., 14@15c.; 2-lbs., 12c Fair white 1-lbs., 14@15c.; 2-lbs., 10 to 11c. Buckwheat 1-lbs., 10@11c.; 2-lbs., 9@10c. Extracted, white, 7½@8c.; dark buckwheat, 8@6½c. which is in good demand. Market dull, except for extracted buckwheat; for all other kinds it is quiet, owing to unseasonable weather, we believe.

HILDRETH BROS. & SEGELKEN,
Jan. 10. 28 & 30 W. Broadway, near Duane St.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

Good Enough.—Audrews & Lockhart, of Patteu's Mills, N. Y., on Feb. 20, 1889, wrote as follows concerning their use of the advertising columns of the AMERICAN BEE JOURNAL:

We got more orders from our advertisement in the AMERICAN BEE JOURNAL than from all the oth er bee-papers put together.

Advertisements.

HARD-TIME PRICES. 25 pkt. collection of Garden Seeds, your selection from our list, *postpaid*, **50c.** List free. J. G. Kreider, Milton Grove, Pa.
12A3t
Mention the American Bee Journal.

BRIGHT ITALIAN Bees and Queens, Bee-Hives, Sections, Foundation, etc.
12A1y **H. H. RUETER, Baxter Springs, Kan.**
Mention the American Bee Journal.

BEES FOR SALE,

IN 8 or 10 frame Langstroth Hives. For prices, apply to **PAUL SCHEURING,**
12A1t WEST DEPERE, Brown Co., WIS.
Mention the American Bee Journal.

NEW YORK CITY

COMB FOUNDATION FACTORY!

NATURAL-BOTTOM FOUNDATION, good and cheap as the best. All Bee-Supplies, same characteristics. Price-List, &c. FREE. Address, **A. J. KING,**
12A1t 51 Barclay St., NEW YORK, N. Y.
Mention the American Bee Journal.

ALBINO and ITALIAN QUEENS.

THOSE desiring to secure *pure* ALBINO QUEENS, will best accomplish their object by purchasing of the Original Producer of this valuable and beautiful race of Bees. For Circulars, address, **D. A. PIKE,**
12C3t SMITHSBURG, Wash. Co., MD.
Mention the American Bee Journal.

APIARIAN SUPPLIES.

DR. TINKER

Offers for 1889, a superior line of supplies. His

WHITE POPLAR SECTIONS,

and **Perforated Zinc,** are still in the lead for perfect work. His **Two-Rowed Zinc Strips** for the Wood-Zinc Honey-Boards are unequaled. His

NONPAREIL BEE-HIVE

presents the latest improvements, suited to the best management yet devised. At the Columbus Centennial it was awarded the

FIRST PREMIUM

over all the leading Hives of the day. His **SECTION SUPERS,** No. 1 and No. 2, for Open-Side Sections, are the very best!

Samples of Sections and Zinc, five cents. Price-List free. Address,

DR. C. L. TINKER,
12A10t NEW PHILADELPHIA, OHIO.
Mention the American Bee Journal.

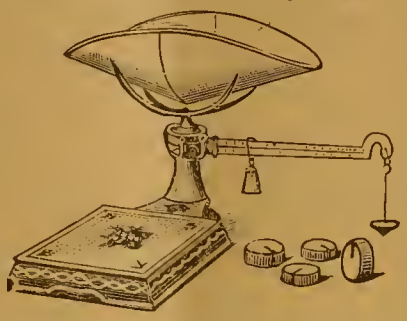
The Hive and Honey-Bee, and Dadant's Foundation. See advertisement in another column.

Send 75 Cents for my Book, entitled—"A Year among the Bees;"—114 pages, cloth bound. Address,
DR. C. C. MILLER,
20Atf MARENGO, ILLS.

HOME EMPLOYMENT. AGENTS wanted everywhere, for the HOME JOURNAL,—a grand family paper. *Big Cash Premiums.* Sample FREE.
THOS. G. NEWMAN & SON,
923 & 925 West Madison-Street, - CHICAGO, ILLS.

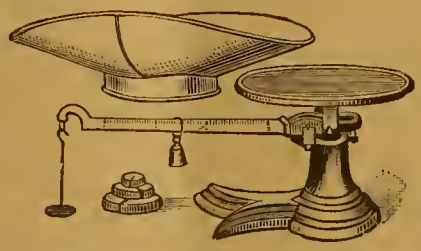
Useful Scales

The Union or Family Scale.



This Scale has steel bearings, and it weighs from ½-ounce to 240 pounds. Price, with a Single Brass Beam, as shown in the illustration, $3.00. With Double Beam for taking the tare, $3.50.

The Little Detective Scale.



This little Scale is made with steel bearings, and a brass Beam, and will weigh accurately ¼-ounce to 25 pounds. It supplies the great demand for a Housekeeper's Scale. Prices:

Single beam, no scoop		$2.00.
"	tin "	2.50.
Double "	no scoop	3.00.
"	tin "	3.50.

☞ All orders filled promptly.

THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL.

Langstroth Brood-Frames!

$5.00 PER 1,000.

WE have 10,000 of the Muth Langstroth Brood-Frames, which are A No. 1; 200 in a box. Will take $1.00 per box, or $5.00 per M. This is less than cost. Address,

SMITH & SMITH,
12A1t KENTON, OHIO.

SURE to send for our Circular before buying. ITALIAN BEES by the lb.; 2 and 3 frame Nuclei, Queens, Sections, Foundation, &c. Untested Queens in May, $1.00; in June, 75c.; 3 for $2.00. Tested Queens, $1.25 to $3.00, in their season; 2 and 3 frame Nuclei, $2.00 to $4.00, with Queens. Address,

JNO. NEBEL & SON,
HIGH HILL, Montg. Co., MO.

☞ **Our Prices on Bees and Queens are the Lowest!** 12Etf
Mention the American Bee Journal.

FOR SALE.

100 COLONIES Italian and Hybrid BEES, in Langstroth hives—Italian, $3.00; Hybrid, $2.50 per Colony.
Address, **J. W. HOWELL,**
11A2t KENTON, TENN.
Mention the American Bee Journal.

LANGSTROTH.

IN the BEE-KEEPERS' REVIEW for March will be begun a comprehensive review of "Langstroth on the Honey-Bee, Revised by Dadant." It will be continued through several numbers. If you wish for the cream of this work, to learn what it contains new, to know what few points the REVIEW opposes, subscribe at once for the REVIEW. The March number does the best that can be done in answering the query, "Which are the best bees."

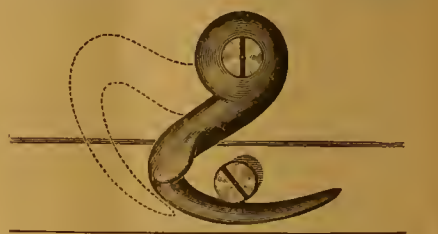
Price of the REVIEW, 50 cts. a year. Samples free. Back numbers furnished.

The Production of Comb Honey is a neat little book of 45 pages—price 25 cts. This book and the REVIEW one year, 65 cts. For $1.00, the REVIEW will be sent two years, and the book "thrown in." Stamps taken, either U. S. or Canadian.

Address, **W. Z. HUTCHINSON,**
12A1t 613 Wood St., FLINT, MICH.
Mention the American Bee Journal.

The Revised Langstroth, and Dadant's Foundation. See advertisement in another column

Dibbern's Malleable Hook



One-half of the regular size.

FOR fastening loose **Bottoms to Hives,** and many other useful purposes. The *neatest, best* and *cheapest* thing out.

☞ **Price, 20 cents per dozen.**

Address, **C. H. DIBBERN,**
10A13t MILAN, ILLINOIS.
Mention the American Bee Journal.

A New Book on Bees, and Dadant's Comb Foundation. See advertisement in another column.

ITALIAN BEES, QUEENS, and EGGS from Light Brahma and Wyandotte Poultry One Untested Queen, $1; three for $2. Eggs, $2 for 13. Price-List Free.
Address, **H. G. FRAME,**
10E13t NORTH MANCHESTER, IND.
Mention the American Bee Journal.

No. 1, $2.00...No. 2, $1.75...No. 3, $1.50, No. 4, 1.25...No. 5, 1.00...No. 6, .65.
Knife, $1.15.
On receipt of the above price,

SMOKERS AND KNIVES

will be sent postpaid. Descriptive Circulars will be sent on receipt of request card.

BINGHAM & HETHERINGTON SMOKERS are staple tools, and have been used **Ten Years** without complaint, and are the only stove-wood, clear-smoke Bee-Smokers. No giving out. No fussing. No going out. No vexation.
Address,
BINGHAM & HETHERINGTON,
12Atf ABRONIA, Allegan Co., MICH.
Mention the American Bee Journal.

SECTIONS, first-class, $3.00 per 1,000, and **Foundation** cheaper than ever. Dealers will do well to get our Prices. **Alsike Clover, Japanese Buckwheat,** &c. Free Price-List and Samples. **M. H. HUNT,**
2E13t BELL BRANCH (near Detroit,) MICH.
Mention the American Bee Journal.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. March 30, 1889. No. 13.

EDITORIAL BUZZINGS.

This Week we present our readers with a choice Song, set to music by Mr. A. W. Wilson, entitled, "Maggie, the Cows are in the Clover." Music will enliven any household, and this song is easy for the performer on the organ or piano, and has a sweet air. Bee-keepers can change the chorus to read thus, if desired:

The bees are swarming over,
They've tried it now since morn;
Go and hive them, Maggie, out behind the barn.

Hon. Edwin Willits, President of the Michigan Agricultural College, and the honored friend of apiculture, has recently been appointed First Assistant Secretary of Agriculture, by President Harrison.

Mr. Wm. H. Shane, one of the most successful honey producers of Medina County, O., died on the 7th inst. He was not only a good bee-keeper, but also a good Christian.

Ivar S. Young, of Christiania, Norway, writes us that he intended no wrong in the articles he wrote for his paper about his visit to America a year ago, but he fails to explain many things he said derogatory to Americans. We must accept his assertions, however, even though we can see no consistency in them.

In Minnesota this is the latest report of the weather. It is from C. G. Ridout, of Hutchinson, Minn., and dated March 21, 1889. He says:

The weather is fine, 60° above zero, and the sun shining, but no snow, and very little ice. It is the earliest spring known for many years.

That Picture.—Dr. A. B. Mason, of Auburndale, O., writes thus concerning the engraving on page 150, showing the face of our esteemed friend, Mr. Eugene Secor:

It looks just exactly like him (only a little better), and if any one should tell me that it was not a good likeness, I should take a second look at him to see if he was not demeuted.

He then remarks thus about the present condition of his bees which were wintered in the cellar:

We had some warm days last week, so bees could fly, but ours are still in the cellar and in good condition. On Thursday I put out the colony that was the lightest in stores when put in winter quarters last fall, and it had brood in all stages, and stores enough to last till May. I also put out one to which I introduced an imported queen on Nov. 17, and found it in good condition, with plenty of honey, a goodly number of young bees, and brood in all stages.

The Minnesota State Bee-Association was organized at Minneapolis last January, and the officers elected for the first year were: President, L. H. Wilcox, of Hastings; Vice-President, Wm. Danforth, Red Wing; Secretary, Wm. Urie, Minneapolis; Treasurer, J. Bass, St. Paul. Executive Committee, B. Taylor, Wm. Dwire, and J. Bass. The Secretary writes:

This association is organized for the purpose of bringing all the bee-keepers and others who are interested in apiculture together, for their mutual instruction and improvement regarding methods of managing bees, and other things that may be to their advantage, and to those about to engage in the business. The first meeting will be held at the Experimental Farm the same day the Horticulture Society meets, of which due notice will be given.

Fight Between Insects.—An exchange gives this interesting bit of insect news:

A traveler in South Africa reports seeing a caterpillar crawling at a rapid pace, followed by hundreds of ants. Being quicker in their movements the ants would catch up with the caterpillar, and one would mount his back and bite him. The caterpillar would turn his head and bite the ant and kill his tormenter. After slaughtering a dozen or more of his persecutors the caterpillar showed signs of fatigue. Betaking himself to a stalk of grass the caterpillar climed up tail first, followed by the ants. As one approached he seized it in his jaws and threw it off the stalk. The ants, seeing that the caterpillar had too strong a position for them, resorted to strategy. They began sawing through the grass stalk. In a few moments the stalk fell, and hundreds of ants pounced upon the caterpillar. He was killed at once.

Prof. Cook, in a private letter, just received, says:

Bees here seem to have wintered very nicely, though I had to warm the cellar repeatedly by the use of a kerosene stove.

The general opinion is that bees have wintered well, though some of those in cellars are reported as having the diarrhea slightly. They will soon get over that after having a good chance to fly.

Detecting Adulterated Honey.—Mr. E. G. Haven, Belleville, Kans., on March 16, 1889, asks this question:

Can you inform us through the AMERICAN BEE JOURNAL how to detect adulterated from pure extracted honey?

That is sometimes rather difficult, but here is a method which will generally prove successful. It is from a Canadian writer in the *Dominion Grocer*. He says:

Genuine boney can be readily distinguished from "manufactured honey" by a microscope. The former has few or no sugar crystals, and abounds with pollen grains, while the imitations have little else than these crystals, with rarely a trace of pollen grains. The honeyed taste of the manufactured article may come from honey comb or beeswax being mashed up with the article used in the manufacture. Each class of plants has its own specific form of pollen grain, and any one conversant with this branch of botany could tell from what part of the world the honey came, by studying the pollen grains that it might contain.

Hiving Bees on Sunday is commented upon by one of our correspondents in a private letter, and as the subject was brought up on page 182 of our last issue, it may be interesting to read the following opinion from a legal as well as apiarian stand-point:

The Sunday law in all States where civilization pure and unadulterated rules, allows of work of necessity and charity being done on the Sabbath. Hiving bees must be considered a work of necessity, consequently legal.

Unless a party obtains consent he has no right to go on to another's land to take bees away. It would be a trespass so to do, but if no injury was done, the damage recovered in a suit at law would be nominal only, say one cent or one dollar.

Catalogues for 1889 are on our desk from—

Dr. G. L. Tinker, New Philadelphia, O.—20 pages—Bees, Queens, and Apiarian Supplies.

G. D. Howe, North Hadley, Mass.—78 pages—Potato Manual.

James A. Nelson, Muncie, Kansas—12 pages—Queens, Comb Foundation, etc.

Dr. A. B. Mason, Auburndale, O.—4 pages—Egg Preservative.

S. L. Watkins, Placerville, Calif.—1 page—Bees and Honey.

Oliver Foster, Mt. Vernon, Iowa—16 pages—Bees, Queens, Honey and Supplies.

Thomas S. Wallace, Clayton, Ills.—4 pages—Bees and Queens.

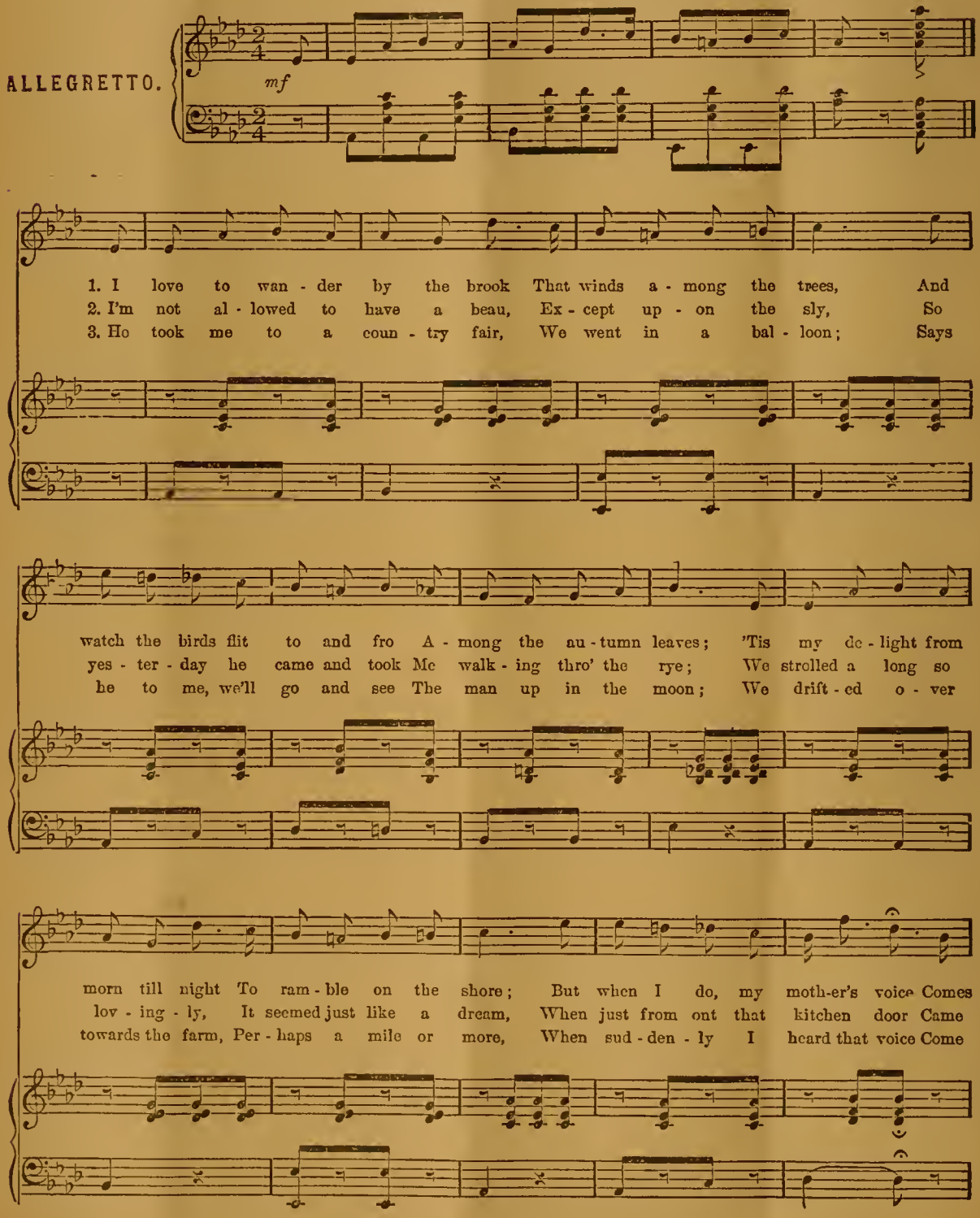
An Admirable historical and anecdotal article, with illustrations, on Washington's Inauguration, leads off the April number of *Frank Leslie's Popular Monthly*. It cannot fail to be in general demand at this centennial period, when President Harrison is preparing to join the commemorative celebration by traveling to New York over the same route taken by our first President one hundred years ago. Another seasonable article is Ensign Wilkinson's account of "Samoa, and the Troubles There." The serial and short stories, literary essays, poems, biographical and natural history sketches, humorous verse and, above all, the art illustrations are profuse and varied, more than sustaining the great reputation of the *Popular Monthly*.

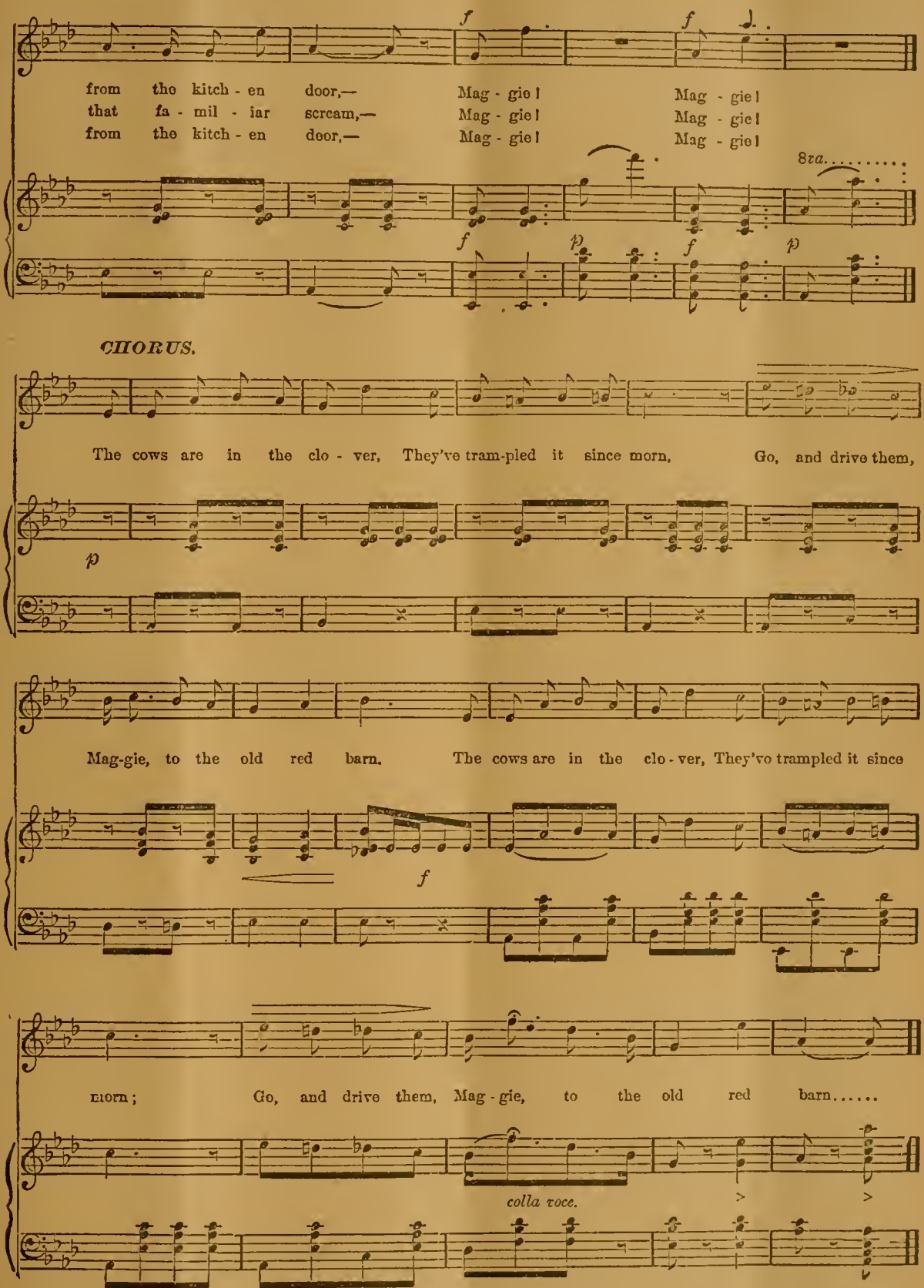
MAGGIE, THE COWS ARE IN THE CLOVER.

SONG.

A Copyrighted Song, by especial Permission of T. B. Harms & Co., 819 Broadway, N. Y.

Written and Composed by AL. W. WILSON.


ALLEGRETTO.
mf
1. I love to wan - der by the brook That winds a - mong the trees, And
2. I'm not al - lowed to have a beau, Ex - cept up - on the sly, So
3. He took me to a coun - try fair, We went in a bal - loon; Says
watch the birds flit to and fro A - mong the au - tumn leaves; 'Tis my de - light from
yes - ter - day he came and took Me walk - ing thro' the rye; We strolled a long so
he to me, we'll go and see The man up in the moon; We drift - ed o - ver
morn till night To ram - ble on the shore; But when I do, my moth-er's voice Comes
lov - ing - ly, It seemed just like a dream, When just from ont that kitchen door Came
towards the farm, Per - haps a mile or more, When sud - den - ly I heard that voice Come


from the kitch - en door,— Mag - gie! Mag - gie!
that fa - mil - iar scream,— Mag - gie! Mag - gie!
from the kitch - en door,— Mag - gie! Mag - gie!
8va.
CHORUS.
The cows are in the clo - ver, They've tram-pled it since morn, Go, and drive them,
Mag-gie, to the old red barn. The cows are in the clo - ver, They've trampled it since
morn; Go, and drive them, Mag - gie, to the old red barn.....
colla voce.

Copyright, 1886, by T. B. Harms & Co.

QUERIES AND REPLIES.

Share to be Given when Keeping Bees for Others.

Written for the American Bee Journal

Query 621.—Suppose that in the spring I take on shares 40 colonies of bees in box-hives, and am told to do with them as I please; but I am to give the owner a share of the increase of bees, in 8-frame Langstroth hives, in the fall, with a slatted honey-board and one Heddon surplus-case on each hive. What share should I give him? Remember that I get nothing but the bees in the spring, and he gets no honey.—Iowa.

Your trade is too obscure; I cannot say.—J. M. HAMBAUGH.

If you are to get all the honey, you should give at least half of the increase.—J. P. H. BROWN.

I should say that if you give him 50 colonies, you would do very generously.—A. J. COOK.

Make the best bargain you can, and stick to it.—MRS. L. HARRISON.

Make the best arrangements together, so as to satisfy both.—P. L. VIALLON.

If you get all the bees in the spring, and all the honey, you should be willing to give him all the increase, if you are allowed to manage the bees, and do it reasonably well.—R. L. TAYLOR.

About one-third. I should not advise you to enter into any such arrangement.—WILL M. BARNUM.

You had better let them alone, unless you can buy them outright.—H. D. CUTTING.

There are so many circumstances which would widely alter just conditions, that I would not try to answer. —JAMES HEDDON.

No mortal can tell. During the past two seasons, 1887 and 1888, it would have been working "for the fun of it," and paying pretty roundly for the privilege, in most localities. No "Hawkeye" should get caught in such a "take."—A. B. MASON.

All depends on the season. If as good as it was here in 1877, you could afford to give him 40 colonies. If as poor as it was in most parts of the United States last year, it would pay you well to let them entirely alone.—G. M. DOOLITTLE.

If the 40 old colonies are to remain the property of the original owner, and only the increase is to be divided, then I should not give him over one-third—that is, you to furnish all the supplies and do all the work.—C. H. DIBBERN.

Find the value of the bees in the box-hives, and the value of bees in the new hives, and give him bees enough in the latter to pay the value of the bees in the former.—M. MAHIN.

I do not know. Whatever the arrangement agreed upon may be, it should be free from conditions, anything vague, liable to be misunderstood, or liable to be understood more ways than one. It should be reduced to a writing in duplicate, that each party may have a copy.—J. M. SHUCK.

If I understand the question, you want to know how many colonies of bees in Langstroth hives in the fall you shall pay for 40 colonies in box-hives in the spring. Figure the actual value of each, and act accordingly. If the risk of wintering is much, you might give him 40 colonies.—C. C. MILLER.

When bees were more valuable than they are now, some years ago, I thought it a good thing on my part to take them one-half for the other. But now I think it would depend upon the locality, and what one was able to do with the bees.—G. W. DEMAREE.

If you return the old hives in the fall, and 20 in the new hives, I should think that both might do well—if the season is propitious, and you know how to *manage* them. But if you did not have that many swarms, and no honey, it would be a losing game for you. I believe, however, that both of you will feel better in the fall if a definite number is agreed upon.—EUGENE SECOR.

I do not know. If the case were mine, and here, I should make a contract that I thought would pay, but to take bees in box-hives to care for and pay back in filled Langstroth hives, I should feel as though I had a hard job before me. It will depend, too, upon the season and yield. The better way, I think, would be to arrange the trade upon a basis such that you will give him a certain amount in value in Langstroth hives, the proportion to depend upon the success of the undertaking.—J. E. POND.

There are too many contingencies to be able to tell what would be exact justice to both parties. Taking into account the uncertainties of the season, if you give the owner a good share of the increase, while you take the honey, it would be as fair an arrangement as you can now make.—THE EDITOR.

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at the Court House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.
H. M. SEELEY, *Sec.*

☞ The DesMoines County, Iowa, Bee-Keepers' Association will hold its annual convention in the Court House at Burlington, on April 23, 1889, at 10 a. m. All bee-keepers are invited. JOHN NAU, *Sec.*

☞ The 11th annual session of the Texas State Bee-Keepers' Association will be held in the apiary of W. R. Graham, of Greenville, Hunt Co., Tex., on May 1 and 2, 1889. All bee-keepers are invited. The last meeting was held here last May, and was the best ever held. So we look forward to a good time next May. A cordial welcome and hospitality will be tendered to all who come. G. A. WILSON, *Sec.*

CORRESPONDENCE.

PARTHENOGENESIS.

Some Remarks on Mr. Latham's Article on Evolution.

Written for the American Bee Journal
BY DR. C. C. MILLER.

On page 168, Mr. J. F. Latham gives some instruction about queen-bees. I am not scholar enough to understand the whole of what he says—in fact there is a good deal of it that I do not understand at all, and I wish that some one who does, would, for the benefit of us common bee-keepers, give us the gist of it in plain English.

What are the points in it that we are to know to enable us to rear better queens? If I get the right bearing of the writer, I am to understand from "the atrophied glands of the queen-bee, that parthenogenesis was, at one period in the existence of her species, a more substantial reality than at its present stage of development." Now are we to understand that Dzierzon is all wrong, and that parthenogenesis "at its present stage of development" is not a very "substantial reality?" Is it not a very "substantial reality" that a virgin queen may lay eggs that hatch?

Another part of the article I think I can understand, but possibly I do not get at the author's real meaning. He speaks of the first and second chapters of Genesis, and then says: "As this narrative of the creation (purported to have been drawn from Acadian and Turanian sources, more than a thousand years prior to the compilation of the books of Genesis, as evinced in resurrected Assyrian literature) is." etc. Now I have read the Bible a good deal—I have read every word of it from beginning to end, and I have no recollection of a single passage in it where it "purported to have been drawn from Acadian and Turanian sources." On the contrary, there are passages in it that show very plainly that it purports to be a direct revelation from God himself. Thus, in II Timothy, 3. 16: "All Scripture is given by inspiration of God." That there are men who do not believe in the Bible as a Divine revelation, I have long known, but this is the first time I have ever known that any one believed or taught that the Bible itself "purported to have been drawn from Acadian and Turanian sources."

If I might be allowed, I should like to ask, if the narrative was "drawn from Acadian and Turanian sources more than a thousand years prior to

the compilation of the book of Genesis," what was done with it during those thousand years after it was "drawn," and before it was used?

Now, mind you, in what I have said, I do not pretend to discuss the question as to whether the Bible is genuine—I have only talked about what it "purports" to be. If Mr. Latham has some other than the common meaning for the word "purported," and simply means to say that there is something not entirely genuine about the Bible as the revealed will of God, then I have a word to say.

I do not consider the pages of the AMERICAN BEE JOURNAL the proper place for religious discussions. We meet here as bee-keepers to discuss matters relating to bee-keeping. Among my friends are some whom I highly esteem, who do not believe as I do in the Bible. Mr. Latham has the right to disagree with me, but surely he must know that in the ranks of bee-keepers there are not a few who reverently study the Bible as in very truth God's word, and when he goes out of his way to lug into a parenthesis a fling at that which we hold so sacred, I feel pretty sure that a careful reconsideration of the matter will make him feel that it would have been better to have treated with a little more courtesy that large number who, although in his opinion they are mistaken in their belief, are at least sincere therein.

Marengo, Ills.

[In-so-far as the matter referred to has a bearing upon parthenogenesis in bees, it is admissible; but a discussion of the subject from a religious standpoint, would be inappropriate to our columns.—ED.]

SEASON OF 1888.

Honey as Digested Nectar, and Sowing Alsike Clover.

Written for the American Bee Journal

BY SAMUEL RAU.

The spring and early summer of 1888 opened with many auspicious omens, calculated to inspire new zeal and rekindle hope in the minds of a multitude of discouraged bee-keepers in this part of the honey-producing world, who emerged with dampened ardor from the conflicts of the preceding unpropitious season.

There was ample nectar in the early bloom to promote brood-rearing, and bees never bred up better, in my recollection. Everything looked bright and encouraging. Colonies were populous and in good condition for business at the proper time; but alas! in spite of all the rosy promises, the harvest time came and went, and we were left with very little surplus to gladden our hearts, and what little we did manage to squeeze out, was not of the best quality.

The natural outcome of a season like the one just passed, is too much swarming and too little surplus. Bees seemed to get just honey enough to keep up brood-rearing. My berry business demanded much of my time about then, so that my bees were allowed to do too much swarming; the result was, 30 swarms and 400 pounds of surplus comb honey from 40 colonies, spring count.

A few of the swarms were a little late, and quit housekeeping before buckwheat bloom was fairly over; others I doubled up, fed 250 pounds of sugar and honey, and finally, with many misgivings, I put 59 colonies into winter quarters, many of them not overburdened with winter stores, and a few rather short for the winter campaign. Forty-two colonies having the least stores, I placed in a bee-cellar improvised for the occasion, but the temperature runs too low, and a few colonies have already gone the way of all the earth; but more about this when we "get out of the wilderness."

Digested Nectar.

While Prof. Cook is undoubtedly correct in a scientific point of view, in defining honey as "digested nectar," yet it impresses me as being about as inelegant as it is scientific. It would be equally correct to say that mutton was digested grass, yet a good many of us would hardly fancy that way of expressing it, because, for want of taste and symmetry in the expression, it might lead to reflections that would be more productive of ill than good effects.

Planting for Honey.

While general, or extensive, planting especially for honey may be neither profitable nor desirable, it is quite clear to my mind that we can still do something in the line of planting, that will ultimately prove profitable. Several years' experience with Alsike clover has demonstrated clearly to me, that it pays the apiarist to cultivate it. With me it is a surer source of honey than white clover, and aside from that, it makes an abundance of most excellent hay, for which purpose I prefer it to red clover.

I never saw bees work on white clover like they did on Alsike last season; the only trouble was, there was not enough of it.

I also plant raspberries for commercial purposes, as well as for the early nectar that they furnish my bees, and I find them very profitable in this way. They help early brood-rearing wonderfully, and have never failed me in all my past experience.

The planting of basswood (linden) can be made a source of profit, as well as a world of pleasure, whether planted in waste places, fence-corners, or as timber belts. It is easy to transplant, grows rapidly, makes valuable timber, and in time yields honey abundantly, besides exerting a beneficial climatic influence.

Columbiana, O.

WINTERING.

The Fall, Winter and Spring Management of Bees.

Written for the American Bee Journal

BY C. A. BUNCH.

When I take off the last surplus honey in the fall, I see that each colony has a good queen, and plenty of young bees, and if they do not have one or both, I shake the bees off the combs, close up the hive tightly, and use the combs in the spring, unless I need them to give to some colony that I find short of stores. All colonies that do not have 25 or 30 pounds of honey I will feed—honey if I have it in brood-combs, if not, I feed a syrup made of granulated sugar, as I never allow a colony to suffer for food, if I know it.

I next prepare the bees for wintering. I have five double-walled hives, three filled with chaff or cut straw, and two with dead air spaces, all with bees in them, and 20 colonies in single-walled hives, all of which I am wintering on the summer stands.

To prevent mold and damp chaff and quilts, I stop all upward ventilation with a board or plank with chaff above the board. I use plenty of chaff, and it is pressed down tightly. I like these boards the best when they are made so that the bees can pass over the frames. Such an arrangement will keep the bees from freezing; and I have found out by experience that the entrance must be left open the full width, all through the winter; if not, the bees will get too warm, and sweat so much that a small entrance will soon close up with ice—at least here in northern Indiana I find the hives to be that way. My hive entrances are open $\frac{3}{8}$x18$\frac{3}{8}$ inches through the winter, until in April.

Managing Bees in the Spring.

In April, when a colony is reduced by the old bees dying off, I close the entrances to about $\frac{3}{8}$ by 4 or 6 inches, and this will cause the bees to build up

fast, and will keep the brood from chilling while we have so much changable weather. I am not in a hurry about unpacking the bees until about time to put on the sections.

Last spring, and a year ago last spring, the most of the hives were full of bees, and swarming commeneed from May 16 to the 20th. One swarm that I hived a year ago last spring, on May 16, built five Langstroth frames full of comb, with only foundation starters in the brood-nest, and stored some over 100 pounds of comb honey, besides enough to winter on. The season of 1888 was a poor one for honey in this part of the country. I think there was too much drouth.

La Paz, Ind.

BEES STARVING.

Season of 1888—Fruit-Growing and Bee-Keeping.

Written for the American Bee Journal

BY J. M. CLARK.

The past was an "off year" with me in bee-keeping. I wintered 37 colonies, and lost 2 from starvation during the backward spring of 1888, so I commenced the season with 35 colonies in good condition. I moved them about half a mile the last of May, and lost only about a pint of bees, by their returning to their old stands.

By supplying them with extracting combs, I succeeded in increasing them to 40 colonies, by natural swarming, and secured 200 pounds of extracted honey, over and above enough to carry them through the winter.

After doubling them back to the original number (35 colonies), I put them into my new bee-cellar, in which the temperature has ranged from 35° to 46°. They have been very quiet until within a few days (March 8) 3 or 4 colonies have become quite uneasy, and spotted their hives some.

I am combining bee-keeping with small fruit-growing, and last year I got two crops from my raspberries—one crop of honey (about one-half of my honey crop), and one crop of berries—in fact about the only plants that yielded honey last summer were raspberries and buckwheat.

We hear of a good many in this locality who are losing their bees this winter by starvation. One of our leading bee-keepers killed all his bees—about 60 colonies—last fall, thinking that he could purchase in the spring cheaper than he could buy feed to carry them through the winter. I think that he will "get left."

I am not discouraged by the past failure, and propose to keep my "dish right side up," so that when a good season comes I may then catch my share. With such a honey crop as I had in 1886, and the number and condition of my bees in 1888, my crop would have been tons, instead of hundreds of pounds.

Hillsdale, Mich.

The Boy and the Bee.

Written for the American Bee Journal

BY GEORGE W. YORK.

A little boy just ten years old
(Who lived upon a farm),
Went out to watch his brothers plow—
In this there was no harm.

So quietly he walked along—
This happy, barefoot boy,
So free from care, or anything
That sometimes does annoy.

A clover field was being plowed;
The air with sweetness filled;
And many bees did hover round
The nests they once did build.

One bumble-bee was out of sorts,
Indeed he was quite mad,
And seemed delighted when he saw
The careless, joyful lad.

"Now I'll just whisper in his ear,"
Thought angry Mr. Bee,
"And tell him all about my home,
His brothers spoiled—you see?"

So thinking, Mr. Bee flew on,
To greet the little boy;
And when they met, the bee began
In words devoid of joy;

But as the bee revealed his tale (or tail),
Oh, how that lad did yell,
"Mother! Mother!" in fearful sound,
And rushed for home pell-mell.

Across the mellow ground they flew,
That bee and boy—my brother;
The bee still with his tale (and tail) engaged,
The boy still howling "Mother!"

Which won the race I scarce can tell—
I know the speed was high;
The lad went like the swallows famed,
That once did "homeward fly."

Chicago, Ills., March 18, 1889.

BEES IN CITIES.

How Bee-Keeping Can be Made to Pay, etc.

Read at the New York Convention

BY M. C. HAND.

For many years I have been a careful and diligent student of this most interesting branch of natural history. This industry is confined almost entirely to the country, for there is where milk and honey flow, probably for the reason that "God made the country, and man made the town." It may be interesting to know the circumstances that led me to become interested in the honey-bee, which are as follows:

When this city (Syracuse) was a mere hamlet of a few buildings, I removed the stumps of the forest trees for a place to build a home, on a lot that is now fast becoming the centre of the city. I spent the best energies of my life in building up the town; by industry and economy I acquired a competency for my few and simple wants the remainder of my life, and retired to a sizable lot in a less densely populated part of the town.

I soon found that God never designed us for lives of idleness, and, to keep my health, I must still be active. So I went to work in my garden of one-sixth of an acre, with the determination to solve the problem of how much a few feet of surface could be made to produce. I was ignorant in this business of how to take the first step, and I resorted to publications on the subject, as I did later to bee-papers, and I found the conflicting of opinions in both cases were misleading. When I find old bee-keepers squarely opposed to each other, on vital points connected with their pursuit, I must believe that they have yet much to learn on the subject of bee-keeping. There is no disagreement that two and two make four, for the reason that that problem is solved.

I have now arrived at that point where I invite the most careful attention as to how I mastered the most difficult problems in both pursuits, and achieved a great success. I believe I have found the "key" that will unlock the secrets to success, in nearly all the pursuits of life. I did not find this key to success in works of horticulture, or in bee-papers, but in the Bible. It abounds in the choicest lessons for our instruction.

There is no evidence that Paul knew anything about horticulture or apiculture, yet I am indebted to him for this key to both. He says, "The invisible things of God are made known to us in the things that are made." If this be true, and I believe it is, the thing for us to do is to study "the things that are made." If you would be successful with the bees, you must study the bee itself, and find out all those invisible things essential to its life and requirements, and then furnish those to the bee. Until you do this, success will not follow you. As proof that I am correct, I will tell you what I have done.

Studying Things that are Made.

By studying the tomato, it grows for me a vine 10 or 11 feet high, loaded to the top, some specimens being 17 inches in circumference. By studying the strawberry, a little spot half the size covered by my house, yielded me 7 bushels; some of the fruit measuring 10 inches in circumference. By studying the bees, I have learned to bring

them through the cold winters without losing a colony for years, unless they were queenless in the fall.

As further proof that I am right, I have photographs here to show, of a plot of ground 30 feet square, that paid me $283 a year.

I found that under the shade of my fruit-trees nothing would grow, as all plants are sun-worshipers, and would not thrive without its life-giving rays; this led me to make the acquaintance of the honey-bee. I accordingly built attractive little homes under my trees, so that every inch of space should produce.

I soon discovered that the bees had laid out highways to and from their flowery fields miles away; then I found that while near them, their highways were so low, that when returning with a heavy load of honey, they would sometimes bump their heads against my hat, and in that case they would deposit their honey, and return in a minute, to chastise me for obstructing their right of way.

To obviate this difficulty, I constructed all around my bee-yard, a wire trellis 10 feet high, and covered it with grape-vines, which gave a great amount of grapes, and completely obviated the bees flying so low as to come in contact with any one in the garden; and it was a sight to stand in their little yard, and see them fall down like drops of rain when they came directly over their hives; and though my neighbors and their children were frequently within a few feet of the bee-yard, I never heard of one case of bee-stings in ten years. So quiet and unseen were they, that I believe if I had closely applied dividing colonies, I could have kept bees in the city for years, without a dozen persons knowing it.

But my mistake was in inviting all my neighbors and friends in to see my little workers. I will relate what difficulty this lead me into.

Bees and Fruit.

One evening I was in the house of a distant neighbor, and while in conversation with him, his good wife came in and held up a partly-eaten pear in her hand, and said, "See! Mr. Hand, how your bees are eating up our pears!"

The neighbor then said: "Yes; your bees have injured my pears for several years, and this year they drop off worse than ever."

Had this been some ignoramus who had not yet found out that bees had no teeth, and could not eat pears, nor anything but what was in nearly a liquid state, I would not have been so surprised; but he was no less a personage than an editor, and must have printed or read a thousand times about the little moth that deposits its egg in the blossom of the pear, and before the fruit is perfected, causes it to drop off. To charge this to the sting of the honey-bee is simply ridiculous.

This same editor had published in his paper, a short time previous to this occurrence, a very interesting account of the United States Government Bee-Experimental Station at Aurora, Ills. From the store of information I will only quote the following:

"Do bees injure fruit? is a question which interests every one in the country who owns fruit-trees or grape-vines. A part of the experiments has been to establish the truth in regard to the matter, and the agent declares that the little creatures are innocent of all the destructiveness popularly laid at their door."

I felt that I must convince him that my bees were innocent of this charge, or that I must remove them. I accordingly called on him, armed with the highest authority coming from the Government, and published in his own paper, thinking that it would be sufficient to convince him.

When I called at his house, and sent in my name, that I would like to see him, he rushed out to meet me like a lion from his den, in a great rage, exclaiming in the most angry manner:

"Mr. Hand, have you come here to talk bees? I have no time for that purpose;" and pointed me the way out.

This is the first time in my life that any inhabitant of this globe has ever "fired" me off from his premises. We had been acquainted for a third of a century, and he knew if I was a bee-man, I never was known to "sting" any one.

I have no ill-will against this editor; neither do I wish to make money by Tom Moore's suggestion, who says:

"The best speculation I know of for a man of pelf,
Is to buy such an Editor for what he is worth,
And then sell him for the price he sets on himself."

Perhaps I should say as further proof, that I still entertain the kindest feeling toward this editor; that I removed my bees, which necessitated the purchasing of land two miles away, and erecting a bee-house, the whole at an outlay of more than $1,000.

The only object I have in referring to this matter is to urge upon those engaged in this industry, the necessity of convincing the public of the impossibility of bees to injure fruit. I speak of this man as an editor, to show you that, notwithstanding his intelligence, he was, or seemed to be so much in need of knowledge, that I think it is the duty of all the bee-societies to sow broadcast over the country, and avoid, as far as possible, these unpleasant occurrences among neighbors.

Syracuse, N. Y.

EXPERIMENTS.

Having but Few Uncapped Sections in the Fall.

Written for the American Rural Home
BY G. M. DOOLITTLE.

How to manage our bees so as to secure the greatest yield of comb honey, is a question of great importance to all those who are engaged in producing such honey for market, hence we often have articles on this topic giving us instructions regarding it. But comb honey is of little value unless thoroughly sealed or capped over, so that "How to manage our bees so as to have few uncapped sections in the fall," is a question of nearly as much importance to us as the first.

For years I was troubled by having from one-fourth to one-half of the combs in the sections not fully sealed at the close of the honey harvest, which were only salable at a reduced price; but of late I have a few of such, even in a poor season.

After experimenting for a year or two regarding the matter, I became convinced that the cause of the trouble was in giving the bees too many sections, and especially conducive to this was the plan of tiering up sections late in the season. How often have I, years ago, spoiled a promise of an abundant yield of comb honey by tiering up four or five days before the honey harvest closed. To tier up sections profitably requires considerable tact, and especially do we want a thorough knowledge of the honey-resources of the field which we occupy.

I think that there is too much injudicious talk in some papers regarding not allowing the bees under any circumstances to cluster on the outside of the hive, the idea being generally conveyed that when bees thus cluster out they need more room. Now, it depends when this clustering-out occurs, whether more room is needed or not; and hence I say "injudicious talk." If the clustering-out occurs at the commencement, or in the height of the honey harvest, then more room should be given, while if at the latter part of the honey harvest, or in a time of honey-dearth, no more is needed; for more room at this time results in the one case in many unfinished sections, and in the other an absolute waste of time used in enlarging the hive.

To illustrate: During some seasons we have but a very few days of honey secretion, and that often after the flowers which produce the yield are rather past their prime. At such times we often do not have on the hive one-half of the capacity which we would

use in a good season, and for this reason the bees begin to be crowded out. Hoping that the weather may be good during the rest of the time that the flowers are in bloom, we give double the room to our colonies, only to have it turn bad weather again, thus giving us only partly filled sections in the fall, while had we left them as they were, all would have been finished.

Well do I remember one such season when in time of basswood bloom we had bad weather up to the middle of the bloom. At this time I had on each hive a surplus capacity of about twenty pounds, when all at once the yield of honey became abundant, and the bees began to be crowded out. Hoping that the weather might be good for some time, I spread the sections on a few hives, by placing some empty ones between those nearly full, giving at most only about 35 pounds capacity, while when all is favorable, I use 60 pounds capacity. The result was that the bees immediately took possession of the empty sections, while the weather turned unfavorable again, and when the season was over I got no more than 5 to 10 pounds of capped honey from these colonies, while those not touched gave 20 pounds of nice capped honey. In this case the bad weather was the cause, for the spreading was not carried far enough to be unseasonable, but in former years I have been the cause of the trouble by spreading or tiering-up but a few days before the honey harvest closed.

Again, after the basswood bloom had failed, there came on a very hot spell when not a bit of honey was to be obtained, and the result was that the fronts of my hives were black with bees. According to the advice above alluded to, I should have given more room, and if the bees then persisted in clustering out, I must take my smoker and smoke each colony until they all went in and staid there. Any one can see at a glance that this would be of no use, for at such times the bees are doing just as much for the benefit of the apiarist, hanging on the outside of the hive, as anywhere.

But to return. My plan of operation to secure all capped sections is as follows: When the bees show, by building little bits of comb here and there about the hive, that they are ready for the sections, I put on sections to the amount of about 20 pounds, and leave them thus until the bees are well at work in them, when I add about 10 pounds more room, placing it at the sides of the first given them. When this room is fully occupied, I give more room at the sides to about the same amount given before, and were I using the tiering-up plan, I should have my surplus arrangement so arranged that at this time I could raise up about one-half of the sections already on, putting empty sections underneath them, instead of raising up the whole 30 pounds, thus giving them more room, a little at a time, as the bees have need.

By the time the bees fully occupy the room last given at the sides, the first 20 pounds given them is ready to come off; and when this is taken off the partly filled sections on either side are drawn together over the centre of the brood-nest, and empty sections given at the sides again to the amount which I think they will need. Thus I keep taking off and putting on sections, taking the full ones from the middle, and putting the empty sections at the sides until the season begins to draw towards its close, when as fast as full ones are taken from the center, the others are drawn up till the space is contracted to the original 20 pound capacity, or even less, if I think it is necessary. In this way the bees are given all the space they really need, while the chance for many uncapped sections in the fall is quite small.

By a little study the tiering-up plan can be made to conform to the above, and worked on the same principle. I think that any plan which requires the tiering up of from 30 to 40 pounds capacity, or the spreading out of the same number of pounds at one time, is a wrong policy to adopt, while the giving of a small amount of surplus room as needed, seems to me to be a wise course to pursue.

Borodino, N. Y.

THE PROSPECTS.

The Deep Snow Protecting the Clover—Basswood.

Written for the American Bee Journal

BY IRA BARBER.

So far bees are in good condition in this locality, and our prospects for clover is good. There is a great depth of snow all over the fields, which has protected the grass and clover from all harm so far; and as there is from 2 to 3 feet all over our fields now, we are in hopes that it will remain until freezing weather is over.

We got no honey the past season, and where large numbers of colonies of bees were kept together, all had to be fed to keep them alive. I commenced the season with 130 colonies, and it took 3,300 pounds of granulated sugar to keep them alive since June 1, 1888, and I expect to have to feed 1,000 pounds of sugar this spring, before they can get a living. It has cost me more to keep my bees the past season, than it has in all the time since I became a bee-keeper, 37 years ago.

Our prospects for honey from basswood are not very good, on account of an ice storm that we had here in January, that did a great amount of damage to all kinds of timber, and especially to basswood. The ice loaded on the trees to such an extent as to strip every limb from any quantity of the trees, and all are more or less damaged.

If it were not for the bright prospects for clover the coming season, our hopes for a good crop of honey in this locality would be pretty slim.

De Kalb Junc., N. Y., Mar. 14, 1889.

SPRING.

Management for Pleasure as well as Profit.

Read at the Wisconsin Convention

BY REV. T. H. DAHL.

How to manage our bees in spring so we can have a powerful force to gather the nectar when the honey season comes on, is a question of no little importance for a wide-awake bee-keeper. Many bee-keepers have weak colonies at the beginning of the honey-flow, but crowded hives—of bees, not of honey—when it is past. Strong colonies when the bees are consumers, and weak colonies when they are producers, is very poor philosophy. Applied to agriculture it would make every farmer in our country bankrupt.

The secret of success in apiculture is to have strong colonies in the right time, ready for the honey-flow. There can be no doubt about the correctness of this, but the question is, how shall we get them strong in the right time? Now, certainly, this must be our aim in all our management, both fall and winter, but more especially so in spring. The earlier the honey-flow is, the more difficult the management, but also the more important.

The first question will be, when to take the bees out, if they are wintered in the cellar or any other repository. Here is difference of opinions. Some believe in giving them their liberty as early as possible. Others—and I among them—consider it wise to take them out as late as possible. One of our prominent bee-keepers has said very significantly, that he is in favor of putting them out two weeks after the right time. I will give a few reasons why it it well to take them out late in the spring.

As soon as the bees get out on the summer stands they will generally commence breeding. If they get out early, they will breed early. But is not this

just our desideratum, if we would have them ready for an early flow? Certainly, if the good, warm weather could be relied upon to be steady through the whole spring, but we all know this is not the case. We are generally blessed with a good many "squaw winters." Cold nights set in and kill the brood, the bees become discouraged, and so we have "spring dwindling."

Another reason: The bees, when taken out of the cellar, will fly at every possible chance. The winds in early spring are often cold, and thousands of the poor, diligent workers will never return to their home, and the consequence is, chilled brood, weak colonies, and in many instances empty hives.

When, then, shall they be taken out? Not before they can gather pollen from maples and willows. I am every year wintering some of my colonies on their summer stands, and they will tell me when the work has begun. I now take the bees out of the cellar and put each on the same stand they occupied the previous season.

In taking them out I follow this method: I use a leather strap with hooks in each end—*a la* Doolittle. This strap I put over my shoulders, fasten the hooks in the hive, and off we go. I prefer to carry them out in the evening, as they will not rush out so much *en masse* the next morning after they have been out in the open air the night previous.

As soon as the weather permits, I examine them to see how much space they need, and if they have plenty of food. If any are deficient they are marked, and afterwards are supplied with combs of honey left over from last season, or are fed. A splendid rule is to have all our colonies well supplied with stores throughout the whole winter and spring. Colonies occupying too much room are confined to as many combs as they can cover. This is done by means of division-boards or dummies.

Why do I contract the hive? To accumulate the heat and thereby encourage breeding. If the colony is very strong, and the hive is an eight-frame Langstroth, I do not contract, because such a colony is able to fill that space with sufficient animal heat for brood-rearing; if let alone it generally gets everything booming for the harvest.

The other colonies I give more room as often as needed. It is my custom to put a comb in the centre of the brood-nest to force brood-rearing. If the colony needs feeding, that comb is full of honey, if not, it is empty. If more than one comb is required each week, I give the necessary comb at the outside of the brood-nest.

This judicious "spreading of the brood-nest" I have never found to be detrimental to the bees, but always beneficial. I have to depend on white clover as the only resource for surplus honey, and I must have a good force of bees ready when it commences to bloom, or the entire season is lost. Some bee-keepers practice packing in the spring. I tried it one year, but found it too expensive.

I would emphasize the following points: 1. Do not take the bees out of the cellar until late in the spring—not before there is something for them to do. 2. Let them be well supplied with stores. 3. Confine them to a space in proportion to their strength. 4. Give the queen plenty of room for breeding, and see to it that it is kept up till the hives are crowded with workers ready for the harvest.

Stoughton, Wis.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Mar. 30.—Agency, at Agency, Mo.
T. S. Smith, Sec., Agency, Mo.

Apr. 23.—DesMoines County, at Burlington, Iowa.
John Nau, Sec., Middletown, Iowa.

May 1, 2.—Texas State, at Greenville, Tex.
G. A. Wilson, Sec., McKinney, Tex.

May 4.—Susquehanna County, at Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 21.—Northern Illinois, at Pecatonica, Ill.
D. A. Fuller, Sec., Cherry Valley, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Packing Bees—The Weather.

—A. Holding, Langley, B. C., on Mar. 5, 1889, writes:

I had 12 colonies of bees last season, and they averaged about 40 pounds of extracted honey per colony. I protected 14 colonies last fall on the summer stands, under a shed, with a double-walled case (with about 3 inches of space between each wall) slipped on over the hives. The cases are about 6 inches deeper than the hives, and these spaces over the frames are filled, some with clean old sacks, and some with wool. I think that they are all alive, as bees are flying from all the hives. They would have wintered well, however, this winter, so far as cold was concerned, in the unprotected hives. We are having fine, warm and clear weather with frosty nights. I should judge that the temperature in the sun to-day was not less than 80°. I observed the bees for the first time carrying pollen on March 3.

Results of the Past Season.

—B. F. Carter, Patterson, Iowa, on Mar. 11, 1889, writes:

I packed 35 colonies of bees last fall out-doors, with a good bed of straw under them and between the hives, leaving the fronts open. They have had several nice days to fly every month this winter, and from all appearances they are in good condition, except one colony that came out and went into another hive. There are but few dead bees as yet. My yield of honey was 400 pounds from 20 strong colonies and 8 weak ones. I increased my apiary to 45 colonies. I sold 10 colonies for $30 last fall, and $26 worth of comb honey in one pound sections, at 15 cents per pound. It was the poorest yield I ever had, but I am not discouraged. My bees are hybrids and pure blacks. The best yield I ever had from one colony was 140 one-pound sections of honey in one season, three years ago.

Wintering in Chaff-Hives.

—H. L. Sisson, Freeport, Mich., on March 11, 1889, says:

I have 7 colonies in chaff-hives on the summer stands, all wintering finely. The winter has been very mild here, and the bees have had several flights during the time. They are in far better condition than one year ago at this time.

Early Pollen Gathering, etc.

—Geo. E. Hilton, Fremont, Mich., on March 16, 1889, says:

The first pollen was brought in yesterday, and to-day it is coming it quite lively. The snow is nearly all gone, and it is the first time I ever saw pollen brought in in March, in this latitude. I have lost only one colony so far, out of 250, and that was queenless.

Honey Colic—Stormy Weather

—C. G. Ridout, Hutchinson, Minn., on March 14, 1889, writes:

On page 172 I notice the following question, which is answered by Chas. Dadant & Son: "What is the cause and cure for honey giving people who eat it, the colic?" I do not wish to contradict Messrs. Dadant & Son, for they evidently speak from experience, and intended to aid the many honey-colic sufferers; but their experience and my own, and that of several of my friends, is certainly contradicting; for I have invariably found it to be the case that, where honey was inclined to make persons sick, a small amount

was almost always sure to give them the colic, when, if they would eat a good *lot* of it, with bread and lots of *butter*, they never feel any unpleasant effects therefrom.

Last week the weather was fine, and continued so until last Wednesday, when it commenced snowing, and continued until the snow was two inches deep; this morning it commenced raining, and is still at it, and from the appearance of the sky, it may rain the remainder of the week, in which case the danger from high water will be the first of the season.

My 12 colonies of bees that are in the cellar are in good condition, from all outward indications, for I have not examined them yet, but I think that they will all come out strong and healthy. Honey keeps at a steady price, 20 cents per pound for comb, and 12½ cents for extracted, regardless of color.

Moving Bees, etc.—Mr. David Crumrine, Fayette, O., on March 18, 1889, writes:

I finished moving my 70 colonies of bees 20 miles on March 4, with no combs broken, and no colonies smothered. We had fine weather and good roads, and the bees are in fine condition. I cannot do without the AMERICAN BEE JOURNAL, as it contains so much instruction, and that is what every bee-keeper is in need of, that has a desire to keep up with the times.

Gathering Pollen from Maples.—K. A. Dyke, Effingham, Ills., on March 16, 1889, says:

We are having very fine weather the whole of this week; bees have been very busy bringing in pollen from maple every day. White clover is coming up finely, and appears all right here, and very thick; but we rarely have much honey from it in this locality. Our bees have wintered without loss, on the summer stands again, and are very strong for the time of year. They have consumed quite a large amount of stores, though.

Very Favorable Prospects.—John Nebel & Son, High Hill, Mo., on March 15, 1889, write:

We are having April showers to-day, with the temperature at 70°, and bees are gathering pollen. This is surely spring weather, and it is two to three weeks earlier than usual. Our bees are in good condition for commencing this season's work, as they have wintered excellently, each colony still having plenty of stores and plenty of bees. Now, if only white clover will continue to do its part, we may expect plenty of honey. The clover has stood the thawing and freezing weather the past winter, without any material injury; but the clover has looked as favorable many times before, and entirely failed to secrete nectar, with fields white with millions of blossoms, and we have failed to secure any surplus honey. We cannot predict for the honey crop the coming season, though the prospects are good at present. Neither can we count on honey until it is gathered.

Clover in Excellent Condition.—Thos. B. Reynolds, Dayton, O., on March 15, 1889, says:

We have had remarkable weather the past week—70° in the shade—while a year ago this time it registered zero. The bees are flying like they do in June weather, and gathering pollen fast. There is every prospect for a fine season, the white clover being in excellent condition.

Best Season in Ten Years.—R. M. Tate, Elihu, Ky., on Mar. 18, says:

Bees in this part of the State are in fine condition, as we have had but little cold weather this winter. The past year, in this county (Pulaski), was a good one for honey—the best in ten years. I have only 14 colonies, in Langstroth hives, and all have come through the winter safely.

Bees Wintering Splendidly.—J. L. Way, South Newbury, O., on March 11, 1889, says:

Bees have wintered splendidly so far, and have a good lot of honey on hand yet. My 25 colonies, in the Falcon chaff-hives, are all right, and as clean and sweet as they were last fall. They are packed on the sides with clover chaff, and on top with leaves.

Bees and White Clover all Right.—Thomas S. Wallace, Clayton, Ills., on March 16, 1889, writes:

On Nov. 27, 1888, I put 100 colonies of Italian bees into the cellar, which has stone walls, and the floor cemented, which keeps dry and dusty. The bees are all in movable-comb hives. I put them out on March 5, and 99 were alive, one having starved to death; 3 other weak colonies had lost their queens, and the rest were in the best condition that I have ever seen bees at this time of the year. I have examined them, cleaned the hives out, and found the queens all laying; most of the hives had sealed brood and bees hatching out. Our prospects for honey this year are good. I have 9 acres of Alsike clover, that was sowed last spring, and it looks well. The white clover is all right now; it came from the seed last year. The past two seasons killed out almost all of the old white clover, and if we can have seasonable weather this year, we will have a large crop of honey.

White Clover and the Bees.—Geo. L. Transue, Easton, Pa., on Mar. 15, 1889, says:

I examined my bees on March 13, and found them in splendid condition, very strong and considerable brood; in fact I do not think that they could be any better. Prospects for white clover are first-class in this section of the country.

Bees in Good Condition.—A. W. Fisher, Ganges, Mich., on March 16, 1889, says:

I commenced the season of 1888 with 43 colonies, increased them to 54, and took 3,400 pounds of comb honey in one-pound sections, and 120 pounds of extracted honey. I am wintering my bees on the summer stands, packed in chaff; all seem to be in good condition now. I have wintered my bees on the summer stands for the past 15 years, and I have never met with a serious loss.

A Flower.—R. H. Campbell, Madison, Ga., on Feb. 27, 1889, writes as follows:

I send you a species of flower that at this date is covering the earth almost everywhere, and though nearly every day is cool, the Italians are fairly roaring on it. I never saw it before here, and frost has no effect upon it. It has rained nearly all winter, and the earth is full of water. Vegetation ought to be very rank this spring. We had no winter until January and February, but those months have been genuine winter. My bees wintered well, and have an abundance of honey.

Uncapping Honey.—H. E. Hill, Titusville, Pa., on March, 16, writes:

In reply to Mr. Henry Durham's question on page 172, I would say, having a pail of *cold* water handy, and occasionally dipping the uncapping knife into it, will be found to obviate

the difficulty referred to, and greatly assist in making a clear, smooth cut, if the knife is very sharp, as it should be for uncapping. A good uncapping-knife is indispensable in the apiary. I believe there is but *one* good knife, made for that purpose; I have used a number of different kinds, but I find it "false economy" to butcher combs with a cheap knife. The Bingham & Hetherington uncapping-knife is worth just its price more than any other I have ever used.

Bee-Keeping as a Business.—James A. Scott, Harrison, O., on Mar. 13, 1889, writes:

In this locality there are many bee-keepers owning from 3 to 20 colonies. Many have had the "bee-fever," but did not avail themselves of the many excellent bee books and papers, and consequently failed for want of knowledge. The general opinion here is, that keeping bees as a business is unprofitable. We have had three poor years in succession. Foul brood prevails extensively—several apiaries of from 12 to 20 colonies being entirely dead. I must admit that no one has followed bee-keeping intelligently and persistently, long enough to know how profitable it may be. I greatly prize the back volumes of the AMERICAN BEE JOURNAL, as books of reference.

Costly Neglect.—It is a very great mistake for a farmer to pay big prices for machinery to till his soil, and then leave them out to take the weather. Yet, strange to say, a man can hardly travel fifty miles through our settlements without counting a dozen or more ploughs, hay-racks, reaping machines, etc., standing in the field where the farmer unhitched from them when the season's work was done. Some even have tool-houses, but have neglected to store their implements. This is a burning shame, for next year the farmer will be patching up and trying to work with old, weather beaten, sun-warped, rusty implements, and one year hence he will be in the market buying new ones. Thus he will be at a great loss of time this year in making his much-abused implements answer, and at the great expense next year of buying new machinery, which if served in a like manner will soon wear out also. Now, the first object of every farmer should be to house his tools when through work with them, as they will last double as long by this treatment. Nothing is truer than the statement that sun, wind, rain and snow wear machinery more than judicious use.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of of any other papers. Send for such to the publishers of the papers you want.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble, and at the same time help to scatter apicultural knowledge and promote the welfare of our pursuit.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

Simmins' Non-Swarming System, and the AMERICAN BEE JOURNAL for one year, for $1.25. The subscription to the BEE JOURNAL may begin now.

Honey and Beeswax Market.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½@7 cts.; amber, 5½@6c. Comb, white 1-lbs., 13@14c.; 2-lbs., 10@12c. Demand for extracted is good; for comb, limited. Prospects are not as good for honey as in 1888.

BEESWAX.—Scarce, at 18@22c.

SCHACHT, LEMCKE & STEINER,
Mar. 15. 16 & 18 Drumm St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 18@20c.; best 2-lbs., 17@18c. Extracted, 8@9c.

Sales are good, but market is short of fancy white comb honey.

BEESWAX.—24c.

Mar. 22. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 15@16c. Sales slow. Extracted, 8@9c. Demand small, prices lower.

BEESWAX.—22@23c.

Mar. 22. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 15@16c.; 2-lbs., 12@31c. Good dark 1-lbs., 12@13c.; 2-lbs., 10@11c.

Mar. 21. S. T. FISH & CO., 189 S. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@15c. Demand is slow, and prices low.

BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.

Mar. 21. C. F. MUTH & SON, Freeman & Central Av.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Good Enough.—Andrews & Lockhart, of Patten's Mills, N. Y., on Feb. 20, 1889, wrote as follows concerning their use of the advertising columns of the AMERICAN BEE JOURNAL:

We got more orders from our advertisement in the AMERICAN BEE JOURNAL than from all the other bee-papers put together.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

Advertisements.

1,000 Lbs. Bees, with Queens & Brood—Bee-Supplies, Honey, &c. Price-List FREE. OLIVER FOSTER, Mt. Vernon, Linn Co., Iowa. 13A10t

Potatoes to Exchange,

EARLY Sunrise Potatoes (earliest grown), for Foundation, Bees by the lb., 1¾-inch Sections, and Beeswax. Potatoes 75 cents per bushel; grain-sack with every 1½ bushels.
Address, S. J. YOUNGMAN,
13A2t LAKEVIEW, Monte. Co., MICH.
Mention the American Bee Journal.

HARD-TIME PRICES. 25 pkt. collection of Garden Seeds, your selection from our list, *postpaid*, **50c.** List free. J. G. Kreider, Milton Grove, Pa. 12A3t
Mention the American Bee Journal.

BRIGHT ITALIAN Bees and Queens, Bee-Hives, Sections, Foundation, etc.
12A1y H. H. RUETER, Baxter Springs, Kan.

The Hive and Honey-Bee, and Dadant's Foundation. See advertisement in another column.

HANDSOME SECTIONS.

WE have a limited quantity of One-Pound Sections, 4¼x4¼, a trifle less than two inches wide, with narrow tops, in packages of 1,000 each. They are manufactured from extra white lumber planed on both sides, making them the finest and most attractive honey-section in the world. Price, $3.50 per package.

THOS. G. NEWMAN & SON,
923 & 925 West Madison-Street, - CHICAGO, ILLS

HURRAH FOR 1889!
A New Style of Clamp.
BEST THING OUT.

Can be used on any hive.

EVERY bee-keeper should try them. Sections most easily placed in, and removed from, and best protected from bee-glue.

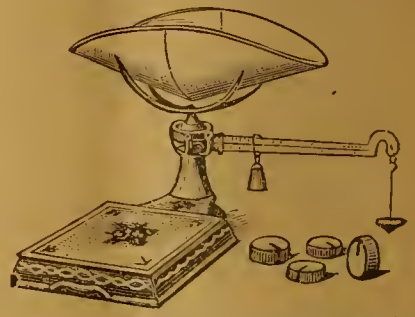
Descriptive Price-List Free.

A 30-page Catalogue. Full line of BEE-KEEPERS' SUPPLIES; also FULL COLONIES, NUCLEI and QUEENS. ☞ Oldest House in New England. Established 1860.

Address, WM. W. CARY & CO.,
6A3t-9Dtf COLERAINE, MASS.,
Successors to Wm. W. Cary & Son.
Mention the American Bee Journal when answering this Adv't.

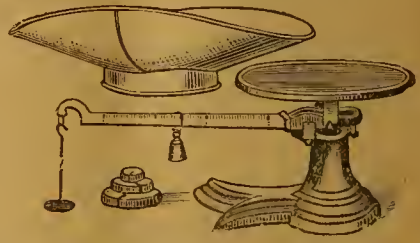
Useful Scales

The Union or Family Scale.



This Scale has steel bearings, and it weighs from ¼-ounce to 240 pounds. Price, with a Single Brass Beam, as shown in the illustration, $3.00. With Double Beam for taking the tare, $3.50.

The Little Detective Scale.



This little Scale is made with steel bearings, and a brass Beam, and will weigh accurately ¼-ounce to 25 pounds. It supplies the great demand for a Housekeeper's Scale. Prices:

Single beam, no scoop	$2.00.
" " tin "	2.50.
Double " no scoop	3.00.
" " tin "	3.50.

☞ All orders filled promptly.

THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL.

Send for Early Queens
TO J. N. COLWICK:

1 Tested Italian,	before May 15,	$2.25;	after,	$1.75.
3 "	"	6.00;	"	4.50.
1 Untested "	"	1.00;	"	.90.
3 " "	"	2.75;	"	2.50.

1-Frame Nucleus, with Two Pounds of Bees, 2.35.

☞ I give a dicount of **10** per cent. on Orders booked for the next 20 days. Safe arrival and satisfaction guaranteed. Send for Price-List.

9DSt NORSE, Bosque Co., TEXAS.
Mention the American Bee Journal.

1889. Italian Queens. 1889.

HAVING moved 8 miles from Nicholasville, to a better location for BEES, I will engage in Queen-Rearing more extensively than formerly. I have the *very best* ITALIANS only. Prices:

Select Tested Queens, in April, $3; in May, $2.50; in June, $2.00; July to November, $1.50. Queens warranted purely mated, $1.00; 6 for $5.00.

☞ Make Money Orders payable at Nicholasville. Send for Circular. Address,

J. T. WILSON,
7Dtf LITTLE HICKMAN, Jessamine Co., KY.
Mention the American Bee Journal.

FRESH MADE FOUNDATION.

I AM still in the Wax business, and will sell as follows: Heavy Foundation, per lb., 32 cts; Thin Foundation, per lb., 42 cents. Wax worked: Heavy, per lb., 8 cts.; Thin, per lb., 15 cts.
13Atf J. V. CALDWELL, Cambridge, Ills.
Mention the American Bee Journal.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. April 6, 1889. No. 14.

EDITORIAL BUZZINGS.

Oh, where shall rest be found ?
The weary wand'rer cries ;
And echo answers, "Where
They do not advertise."
—*Washington Critic.*

March went out with a cold wave. The last few days here in Illinois were cold, with frosty mornings, and on the last day there was a cold rain. The latter was very much needed, and will do lots of good. The bees are reported generally in excellent condition, and so far wintered without loss. Every indication now points to a good honey season—though the spring may not be as *early* as some have expected, it will be on hand in good time.

Restoring Oil-Cloth.—An old and reliable English cook-book give this recipe as an oil-cloth restorer :

Melt one-half of an ounce of beeswax in a saucer of turpentine. Rub the surface of the oil-cloth all over with the mixture, and then rub it with a dry cloth.

Two Articles in this issue are devoted to the new Constitution and By-Laws of the International Society. A presentation of the points made by Dr. A. B. Mason and R. F. Holtermann, will be very beneficial, and aid intelligent action at the next meeting. We favor some of the changes suggested, and hope to be at the meeting and "take a hand" at the discussion of all the points that may come up. Meanwhile let others make suggestions.

Our Readers will do well to examine our advertisements closely. Those who advertise in our columns mean business, and those whose advertisements we insert are generally worthy of consideration.

Some have Asked what the "Honey Producers' Exchange" amounts to, and what are its objects, methods, etc. The following statement is sent to us by its President, Mr. P. H. Elwood, and will give all the needed information. He says :

The "United States Honey Producers' Exchange" was organized under the auspices of the New York State Bee-Keepers' Association, in convention at Utica, N. Y., Jan. 17, 18 and 19, 1888.

Its object is to furnish to its members, prompt and reliable information as to the honey crop throughout the United States. Six or more reporters are appointed in every honey-producing State, who forward their reports to the Secretary on the first day of May, June, July, August and September. The Secretary compiles these reports from each State (separately), and on the 10th of the month forwards to each member of the "Exchange" the reports from the whole United States.

These statistics embrace the increased or diminished number of colonies going into winter quarters, loss in winter and spring, condition of bees at the beginning of the season, proportion of full crop of honey gathered both white and dark, comb and extracted, the quantity of honey in the different markets remaining unsold, with price, etc.

The advantages of this information is too apparent to require any elaboration. We would only say that if you know the honey crop, the market is yours, and you can secure prices in keeping with the amount of honey which you know is on the market.

The "Exchange" has met with great favor among bee-keepers, several members present at Syracuse (Dec. 11–13), and others from abroad, among whom are many of the largest honey producers of the United States, stated that the information furnished by the reports during the past season had been worth many dollars to them in the disposal of their honey, while other prominent bee-keepers pronounced it the best thing that ever came from the association of bee-men.

Feeling assured that all wish to reap a share of the benefits of these statistics, a cordial invitation is extended to all to join the "Exchange," by forwarding your membership fee to the Secretary, G. H. Knickerbocker, Pine Plains, N. Y., which will entitle you to the reports for one year, and also if you can attend its meetings, to all the advantages of membership in the New York State Bee-Keepers' Association, without further expense. The fee is one dollar per year, but it is hoped that enough bee-keepers' will join so that the dollar will cover the cost of two years' reports, in which case you will receive the same for that length of time. Three or four hundred new members are yet needed to bring this about. The "Exchange" has the support and endorsement of such well-known men as Dr. Miller, Messrs. Dadant, Grimm, Manum, Crane, Cushman, Vandervort, Dr. Mason, Dr. Tinker, Pond, Cary, Root, Capt. Hetherington, Martin, Barber, Isham, Doolittle, Clark, Aspinwall, Van Deusen, Heddon, Taylor, Cook, Hilton, Cutting, Valentine, Demaree, Shuck, Foster, Secor, Wilkins, Rasmussen and many others.

Each member will also receive with the report sent out May 10, a list giving the names and address of all the members and reporters. These statistics will not be furnished to the bee-papers for publication, but will be sent only to members. We could not meet our expenses were we to make public our reports.

The "Honey Producers' Exchange" is a valuable aid to the wide-awake honey-producers, and should receive their full confidence and support. Its officers are P. H. Elwood, President ; I. L. Scofield, Vice-President ; G. H. Knickerbocker, Secretary; C. G. Dickinson, Treasurer. These names are a guaranty of its standing and honor.

The Advance published by J. B. Mason & Sons, Mechanic Falls, Me., after copying our remarks on page 131, appends the following :

We wish to tender our thanks to friend Newman for the above very kind notice of us, and we are so glad that such kind feelings exist between the editors of our bee-periodicals instead of a spirit of rivalry. We appreciate any kind words from friend Newman, first because he is one of the ablest, if not the ablest editor we have in our fraternity. In his career he has shown himself bold and fearless, ever ready to stand for right and condemn wrong. We met him at the New Orleans bee-meeting, and found him to be a kind-hearted, generous, good-natured fellow. He ably edits the oldest bee-journal in America, and the only weekly published in the United States.

We would like every one of our readers to see a copy of the good old AMERICAN BEE JOURNAL, that has stood the test for over 25 years, and has been a welcome visitor to the editor of the *Advance* for over 20 years.

If there is one thing more than another that we dislike it is unkind personal remarks between those who should be friends. Any point may be freely discussed without making an unkind personal allusion. We believe in the *fullest discussion* in the kindest manner possible. To agree with our brother editors is our chief aim, and when we must differ in our views on any question, we desire to do it with candor and in kindness. Thanks, Bro. Mason, for the kind words and compliments.

Mrs. Lizzie Cotton has just received the following free notice in the last number of the New York *Voice :*

The AMERICAN BEE JOURNAL warns all against Mrs. Lizzie Cotton's "New System of Bee-Keeping." None of the bee-periodicals, it says, will accept her advertisements.

The above paragraph doubtless was brought out by the warning remarks found on page 132 of the BEE JOURNAL, in regard to Mrs. Cotton's deceptions. But the *Voice* failed to state that it had also been one of her dupes, in that it also published her advertisement of her alleged "New System of Bee-Keeping."

At this Centennial period nothing could be more appropriate than the opening article in the ILLUSTRATED HOME JOURNAL for April, entitled "One Hundred Years a Nation." It is intensely interesting throughout, giving scenes, anecdotes, and historical incidents in such an instructive manner that one can hardly find a place to stop, until all is read. The number has 43 illustrations, and contains two continued stories, of more than average merit, besides ten illustrated articles, music, essays, historical sketches, and considerable miscellaneous matter. It is a large quarto, and each issue contains 36 beautifully printed pages. It is published monthly by Thomas G. Newman & Son, 923 and 925 West Madison Street, Chicago, Ill., at $1.50 a year.

For clubbing rates with the BEE JOURNAL see page 221 of this issue.

BIOGRAPHICAL.

REV. STEPHEN ROESE.

On this page we reproduce an engraving showing the features and appearance of Mr. S. Roese, of Maiden Rock, Wisconsin, who is one of the many successful bee-keepers of that progressive State. At our request Mr. Roese has written out a short autobiography for the AMERICAN BEE JOURNAL, and we present it to our readers. He was left an orphan when only 13 years old, but has fought "the battle of life," and is now 60 years of age, having spent much of his life in missionary work among his German countrymen in England and America, endeavoring to do them good, and help them to

REV. STEPHEN ROESE.

a better life. But we will let him tell his story in his own language. He says :

I was born on July 3, 1829, in the town of Wolira, Electoral Hesse-Cassel. My parents were at one time well-to-do farmers ; my father having served in the great war against Napoleon Bonaparte, from 1806 to 1815, in both the decisive battles of Leibzig and Waterloo. He was given to strong drink, which brought the family to want and loss of home. My good mother died when I was 10 years of age, and my father was accidentally killed (while intoxicated) by a wagon being upset in a dug-out road, leaving me an orphan at the age of 13. While standing at my father's grave, and seeing my last earthly hope lowered into its bosom, I gave myself into the keeping of Him, who has promised to be "a father to the fatherless," and vowed sacredly to God, by His help, that as whisky had killed my father, it should never kill me. This promise laid the foundation for my life of total abstinence.

At the age of 20 I was drafted into the military service, in 1849, at the time of the general revolution in Europe, and my five years of military service was a constant equipment, and moving to and fro during the Crimean war. On petition I was grauted a furlough to go on a visit to Holland. At Rotterdam I took passage for London, England, where I was in a strange land with a strange language, making my home near White Chapel, London. I met with a German missionary there, whom I assisted in his ardent labors, and helped in the Sunday-school.

After three months in that noted city, I longed to cross the Atlantic, the land of the free, where my sister in Rockland county, N. Y., was waiting for me. On my arrival at New York, Oct. 30, 1855, by recommendation of the German London Missionary Society, I was employed as colporter among the Germans by the American Tract Society. During that four years, I studied and fitted myself for a better work. By experience and change of views, I became connected with the Baptist Mission, and entered the services of the American Baptist Publishing Society as missionary among the Germans in the Upper Mississippi Valley, from which service I was compelled, by sickness, to retire two years ago. I am now doing Bible work for the same Society, as my health and strength permits.

For many years I had a longing desire to study the nature of honey-bees, but I feared their stings. At last I became owner of a colony of bees, which I moved in mid-winter, and I wonder now how they lived through, for I nearly worried them to death, carrying them up and down stairs, until, in the spring, hardly a handful of bees were left. They swarmed, but the next winter they all died.

My desire to keep bees was so strong that I bought another colony the next spring. On taking them home, a distance of 13 miles, the roads being miry and bad, I ventured to drive on the ice of Lake Pepin. After getting on the ice (I did not know it was springy near the shore), I soon found myself with the horse, buggy and bees immersed in water. By the help of some skaters near by, I saved the horse, but my bees could not endure so much water, and I had to purchase another colony ; this, however, lived and did well until the following winter, when they all perished. After that I obtained a colony of hybrids, and having heard and read of the Langstroth movable-frame hives, and many other improvements, I was not slow to avail myself of these advantages, and I feel grateful for them, in which all modern bee-keepers are partakers, and which the venerable Father Langstroth was instrumental in giving to the world.

The instructive reading of bee-periodicals, the exchange of thought and experience of bee-keepers, queries and answers, etc., all has a tendency to make bee-keeping one of the most fascinating industries in the world. Show me a successful bee-keeper, and I will show you an intelligent person.

Intelligence being the moving power in this great onward work, they are a combined brotherhood, ready to sacrifice and stand by each other in time of need. Comparing the tenor of the bee-periodicals at the present date with those of years gone by, it can be truly said that knowledge is increasing.

Catalogues for 1889 are on our desk from—

Gaiani, Bonaghi & Co., Porta, St. Felice, Bologna, Italy—3 pages—Queen Bees.

Reynolds Brothers, Williamsburg, Ind.—4 pages—Hatcher for Fowls.

Wakeman & Crocker, Lockport, N. Y.—6 pages—Machines for Constructing Honey-Boxes.

W. T. Falconer Manufacturing Company, Jamestown, N. Y.—20 pages—Apiarian Supplies.

Empire Washer Company, Jamestown, N. Y.—16 pages—Washers, Wringers, Clothes Racks, etc.

S. L. Allen & Co., 127 Catharine St., Philadelphia, Pa.—32 pages—Tools for Farm and Garden.

Triple Lense Magnifiers have been so often called for that we have concluded to keep them in stock for our subscribers to inspect bees, insects, etc. "Sister Gracious," in *Vick's Magazine*, speaks thus concerning their use by boys and girls :

They are invaluable in the conservatory, or even with a few plants. For boys and girls they make delightful studies, and arouses in them an enthusiasm for investigation. Our active, mischief-loving boy was a whole hour studying a scale insect on an ivy leaf. He said, "I thought they were the homeliest and most stupid of bugs, but with my glass I really see something to admire in them. They don't have legs, but 'they get there all the same,' for the mouths all down each side of their bodies suck the sap out of the leaves, and this makes ugly brown spots." And the work of going carefully over each leaf and sponging off the insects was more cheerfully accomplished because he had been so interested in studying the creatures' strange ways. Take the magnifier into the garden on a summer afternoon, and the children will be more interested in the wonders it reveals than in fairy stories or old legends.

Price, by mail, 80 cts.; or the BEE JOURNAL one year, and the Magnifier, for $1.50.

Subscribers who do not receive this paper promptly, will please notify us at once.

The first bank in the United States was the Bank of North America, chartered by congress at the instance of Robert Morris in 1780, and by the state of Pennsylvania in 1781, with a capital of $400.000. It is still in existence in Philadelphia.

Convention Notices.

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at Tarbell House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.
H. M. SEELEY, *Sec.*

☞ The DesMoines County, Iowa, Bee-Keepers' Association will hold its annual convention in the Court House at Burlington, on April 23, 1889, at 10 a. m. All bee-keepers are invited. JOHN NAU, *Sec.*

☞ The 11th annual session of the Texas State Bee-Keepers' Association will be held in the apiary of W. R. Graham, of Greenville, Hunt Co., Tex., on May 1 and 2, 1889. All bee-keepers are invited. The last meeting was held here last May, and was the best ever held. So we look forward to a good time next May. A cordial welcome and hospitality will be tendered to all who come. G. A. WILSON, *Sec.*

QUERIES & REPLIES.

Blankets or Quilts over Frames —Hive-Covers.

Written for the American Bee Journal

Query 622.—1. Do you consider a blanket or quilt over the frames essential? If so, what do you use? 2. Do you use flat or raised hive-covers?—Minnesota.

1. No; it is a nuisance. 2. A flat cover.—R. L. TAYLOR.

1. Yes, every time. I use Indian-head muslin. 2. Flat.—MAHALA B. CHADDOCK.

1. I do not. 2. I use flat hive-covers. —J. M. SHUCK.

1. I use either a quilt or a honey-board. 2. I have both in my apiary; but I prefer the flat cover.—J. P. H. BROWN.

1. Yes, for winter; and oil-cloth sections for summer. 2. Flat covers only.—C. H. DIBBERN.

1. I have used enamel-cloth, but oftener heavy sheeting. 2. Flat.—C. C. MILLER.

1. Yes; I use burlap. I think that it is best, all points considered. 2. Flat.—J. M. HAMBAUGH.

1. We use oil-cloth quilts and straw-mats, and would not do without them. 2. We use half-story covers with a roof over them.—DADANT & SON.

1. Out-doors, yes; in the cellar, no. Cheap factory cloth or burlap covered with a chaff bag of the same. 2. I use flat covers, and winter my bees in the cellar.—A. J. COOK.

1. No, it is not essential, but I use them because they are good and convenient. 2. Raised, but flat.—A. B. MASON.

1. I prefer to use an enameled-cloth over the frames next to the cover. 2. Both kinds, but I prefer the flat ones, if well made.—H. D. CUTTING.

1. I prefer to use one at all times when the sections are not on. 2. I use what is termed a "cap" or "hood," 8 inches deep.—G. M. DOOLITTLE.

1. Something to retain the heat is desirable. I have used dry sawdust contained in burlap, with very good results. 2. I use raised or comb-roofed hive-covers.—M. MAHIN.

1. No; I do not like it. 2. A flat cover made of one board is just as good as anything.—EUGENE SECOR.

1. Yes; something both warm and porous. 2. I use and greatly prefer raised covers.—WILL M. BARNUM.

1. I can handle bees more rapidly where quilts are used to cover the frames; therefore I consider quilts the best of all to cover over the frames. Of course, quilts are not "essential," because boards can be used in their place, for I have used them; but they require too much fussing to get them off and on. 2. I prefer a flat cover with a shade-board over it.—G. W. DEMAREE.

1. Well, perhaps it is not absolutely essential, but quite desirable. I use quilts for some hives, and chaff cushions for others. 2. Flat, and usually made of two boards matched together. —MRS. L. HARRISON.

1. I use a blanket that will allow moisture to pass through. The composition makes no difference, either a piece of old carpet or any other substance, that will confine the bees. 2. I use "Hill's device," giving about one inch over the frames. —J. E. POND.

1. It may not be essential, but it is always a good thing. In a winter case for a hive for out-door wintering, I use a plain board over the frames, but a blanket or quilt is just as good, and no better, with suitable packing. 2. I use a flat cover lined with roofing-tin.—G. L. TINKER.

1. While not "essential," perhaps, it seems to retain the heat, which is very desirable; burlap will do this, and yet absorb the moisture. 2. Flat covers answer every purpose.—THE EDITOR.

Glass in the Surplus Apartment —Kind of Hive.

Written for the American Bee Journal

Query 623.—1. Would not a glass in the surplus chamber be an advantage to see when the bees need room? 2. What kind of a hive do you use?—M.

1. None whatever. 2. A modified Langstroth.—J. P. H. BROWN.

1. No. 2. I use the Heddon-Langstroth, and the Heddon and Langstroth chaff-hives.—A. J. COOK.

1. I use glass in some hives, and it is a great help. 2. The plainest, cheapest, well made Langstroth hive that I can make.—H. D. CUTTING.

1. I never use such now, but I used to. It would be no advantage to me. 2. The Gallup hive with some modifications.—G. M. DOOLITTLE.

1. I do not think that a glass is of any advantage. 2. I use the Langstroth hive, that will take four 4¼x4¼ sections.—J. E. POND.

1. No; you can see much better from the top of open sections. I use the New Dibbern Invertible hive, and want nothing better.—C. H. DIBBERN.

1. I consider glass in or about a bee-hive unnecessary. 2. I use the "Invertible" hive.—J. M. SHUCK.

1. If you use surplus boxes, yes; if you use a case for one-pound sections, like the Heddon-case, a glass is not necessary. 2. The eight-frame Langstroth.—MRS. L. HARRISON.

1. No. It is a very simple thing to raise the cover, or one end of a case, to see what is needed. 2. The New Heddon hive, principally. —R. L. TAYLOR.

1. No. If you use the right kind of a case, it is entirely unnecessary. 2. The Langstroth, principally.—EUGENE SECOR.

1. Yes. 2. My frames are nearly the size and form of those that are called Gallup frames.—M. MAHIN.

1. No. It will not pay for the extra expense. 2. The Quinby, *a la* Dadant, and 10-frame Simplicity.—J. M. HAMBAUGH.

1. If you will tell me *where* you would place the glass in the "surplus chamber," I will tell you that I do not think it would pay. 2. The Langstroth-Simplicity. No better hive was ever made.—WILL M. BARNUM.

1. No apiarist who means business, wants to bother with looking through glass. He wants to open the hive and know for sure. 2. The Simplicity and Gallup.—MAHALA B. CHADDOCK.

1. I have no use for any. 2. It is known here as the "eight-frame Everett-Langstroth," taking the Langstroth frame.—A. B. MASON.

1. Oh, no. You can see plainer without any glass in the way. 2. The Langstroth, with a trifling variation that is no improvement.—C. C. MILLER.

1. It would be with close-fitting tight crates, and close-top sections; but not with open sections or frames, when the raising of a corner of the quilt can show the condition of things. 2. We use a large Langstroth-Quinby hanging-frame hive.—DADANT & SON.

1. Nothing satisfactory can be seen through glass in supers. 2. The movable-frame Langstroth in principle, which time and experience will continue to demonstrate the most practical hive, to the practical bee-keeper.—G. L. TINKER.

1. The way my surplus cases are made, glass is of no use. I cover the surplus cases with bee-quilts made of enameled-cloth, and by taking off the hive-cover, and turning back the quilt, I can see what progress has been made, at a glance. 2. I use a modernized Langstroth hive—the best hive in the world.—G. W. DEMAREE.

1. Looking down between the open-top sections will be more satisfactory than glass, when you want to ascertain when the bees need room. 2. We have never used any but the Langstroth hive, except when testing some new feature, by request.—THE EDITOR.

CORRESPONDENCE.

CONSTITUTION.

Some Suggestions on the New Constitution and By-Laws.

Written for the American Bee Journal
BY DR. A. B. MASON.

When at the meeting of the North American Bee-Keepers' Society at Chicago, in November, 1887, I listened to the reading of the report of the committe on a New Constitution, etc., for the Society. I was very favorably impressed with its completeness; and I must confess that to see the editor of the AMERICAN BEE JOURNAL standing there, but the shadow of himself, and scarcely able to stand, or talk, through weakness, the result of a recent severe illness, it elicited my sympathy for the production.

When he stated, before making the report, that most of the work had been done on a sick bed, when *rest* would have been a boon to the fevered, tired brain, I realized that but few would have made any report; but, with characteristic energy and *vim*, Mr. Newman was "on deck," ready to report.

When the committee, to which the report was referred for consideration, simply recommended that the matter be laid over until the next meeting, I felt indignant, and had I not felt that the members of the committee were incapable of such ungentlemanly conduct, I should have taken their action as a direct insult to Mr. Newman, and I fully agree with Dr. Miller's statement when he says, that "Mr. Newman is entitled to a hearty vote of thanks, and the committee appointed to report upon the matter..... deserve a no less hearty vote of—censure, for their neglect to consider and report;" and I then and there decided that if the opportunity were presented, somebody about my size would see what could be done about it.

The subject came up on the morning of the second day's session at Columbus, O., last October, and but little was said about it, and my being in the chair, and not just in the "spirit" to stir matters up, the subject was dropped. During the evening session, Mr. Newman will remember that I called him to the chair, and I "took the floor" for the constitution, and he knows the result. Secretary Holtermann says, "President Mason brought the matter up so (to me) unexpectedly, that it took my breath away." That it is "perfection itself," no one has claimed, and I think that suggestions "are in order;" and for one, I hope that the suggestions will be made, but *do not* "suggest" that certain portions are not right, unless suggesting what is thought to be better.

I also think that Dr. Miller's suggestion on the change of name from "International American Bee-Association" to "American Bee-Society" a very good one; but I should prefer to have it "North American Bee-Society." I would erase the words, "its officers," from Sec. 1, Art. III, and I would insert the words, "and life" in the same article, Sec. 4, between the words "annual members." This section allows no one but members to participate in discussions, which, I think, is right.

In order to do away with the possibility of a tie vote in the executive committee, would it not be desirable to so change the last clause of Sec. 1, Art. IV, so as to read, "the President, Secretary and Treasurer shall constitute the executive committee?"

It seems to me that the last clause of Art. V should be so changed as to make the dues from affiliated societies payable on or before the first day of the annual meeting. My reason for this change is, that a goodly number of bee-keepers' societies do not meet until after the first of January, and some have meetings in the summer, and some in the fall or early winter just before the meeting of the International.

In the first clause of Art. VI, leave out the words "time and;" and change the last word of the article to "time." Leave out Art. VII entirely, and change the numbering of Art. VIII and IX to VII and VIII.

I am decidedly in favor of so changing the last clause of Art. II, of the By-Laws, as to not have it operative in regard to the present President, or that the address be delivered at such time during the sessions of the convention, as Dr. Miller may be absent, or "caught napping," or if such change is not made, and the Doctor cannot be caught off duty, he had better make ample preparation for the President's defense. (See page 711, near the bottom of the middle column, of the AMERICAN BEE JOURNAL for 1888.) It seems a little unfair for the Doctor to so emphatically, metaphorically, sit down on the rising ambition of the present and future Presidents, after he has "passed the chair," and had an opportunity to show off his ability.

In Art. IV, after the word "treasurer," leave out the word "after."

As regards Art. VIII, it may be possible that the committee of five that may be elected (Dr. Miller is wrong in saying, on page 151, "A committee of five *shall* be elected") will inaugurate the proper plans for a "Honey Company"—at least it can be tried.

For the present would it not be advisable to repeal Sub-Sec. 2 of Sec. 2, in Art. IX, and also Art. XI?

Section 2 of Art. XII *seems* to rather "tie the hands" of the executive committee, and confines its selections of essayists and speakers to members of of the Association. A majority of those considered by the executive committee as desirable essayists for the next convention are not members of the Association.

The committee may also think best not to carry out Sec. 1 of the same Article, till after the next meeting of the Association.

It seems to me desirable to add to the first clause of Sec. 3, Art. III, "except persons already members, who may retain their membership by the payment of one dollar, unless objection be made by a member, when the membership shall not continue unless the applicant receives a majority of all the votes cast, as in the case of new members."

I wonder why no apicultural society has yet elected a delegate to the next meeting at Brantford. Does the $5.00 affiliation fee stand in the way? I understand that was the reason why the Michigan State Society refused to affiliate at its last meeting.

If our State (Ohio) Society meets before the meeting at Brantford, I feel confident that there will be at least one State Society affiliated with the International.

Auburndale, O.

[For editorial remarks, see page 211. —ED.]

DESTROYING ANTS.

Report for 1888—Coffee-Bean Honey.

Written for the American Bee Journal
BY WALTER B. DOWNING.

My bees are in good condition, except some are short of stores. I have been feeding a little already. I commenced the season of 1888 with 39 colonies, more than half of which were hybrids. The pure Italians did very well, the best colony storing 80 pounds of honey in the one-pound sections, while some of the hybrids hardly made a living.

There was too much rain and cold for the bees to work on the locust. I got some of them started in the sections a little before the locust quit blooming; then came the raspberries, coffee-beans and white clover. I took about 1,200 pounds of white honey,

nearly half of which was in one-pound sections; the rest was extracted honey.

The rains and cool weather cut off the fall honey-flow before the bees secured enough for winter stores, and I had to feed 200 pounds of sugar. I expect to feed a barrel more this spring. I have 45 colonies now.

I have never seen coffee-bean mentioned anywhere as being good for honey. The bees work on it while the white clover is in bloom. I think that it must yield considerable honey.

The ants bothered a great deal about the honey-house last season. They were those very small black-ants, and increased very rapidly. I declared war on them, but I hardly knew what to try first, as there have been so many things recommended by different ones. I tried scalding their nests, which were in the ground close around the edge of the house; but scalding did not kill them out. I had just been doing some painting and while I had the turpentine there, I thought that perhaps the turpentine would scare them off; so I poured a little on several nests; they did not seem to mind it much at first, but when I went back awhile afterward, I found that the turpentine had soaked down and killed all the ants in the nests. The ground was dry; it might not do so well if it was wet.

Lexington, Ky.

BEE NOTES.

Seasonable Hints for this Time of the Year.

Written for the American Rural Home

BY J. H. ANDRE.

In this, as in all other business, it is far easier to supply a demand than create one.

I have never seen a bee-hive yet that I could not find a good point about, nor one that I could not find a bad one also.

During the summer a queenless colony will hardly ever have any trouble in uniting with a colony that has been hived but a day or two; but if it tries to do so with a colony having plenty of stores during the busy season, they are shown no mercy, but are killed at once.

If increase is wanted, by driving swarms, it is better to leave the old colony, and remove the swarm. As it will be a small one, if done in this way, build it up with the brood from the parent colony, or what is better, from some other one, and make three from two.

When you have hard work to get the bees out of the sections, it is probable that the case has been left on too long, or at any rate, the bees were not doing much in the surplus department, and it was being used as a stow-away for young bees that had never been out of the hive, or at most, only a few feet from it.

Doolittle's method of removing the sections as soon as they are filled, although it may be more work, has the merits of obtaining more white honey, and always gives the bees plenty of business; also one never loses any young bees, as is frequently the case where the whole of the sections are removed at once.

As I had heard much guessing on the weight of a swarm of bees, and wishing to ascertain the facts, I weighed the hiving stall, and after getting a swarm clustered on it which was a medium-sized one, I found its weight to be 10¼ pounds. Probably a very large one would weigh from 12 to 13 pounds.

It is always best if you find that a colony has nearly finished a case of sections, and then have done but very little for two or three days, to remove it at once and give them a case of empty sections, as they might not finish it in several days. If a new one is given them, they usually go to work at once. The unfinished sections may be placed in the next case, or even given away, rather than let a colony lose so much time.

It is no use to disguise the fact that small sections sell the best. The two-pound sections must go. The small sizes will contain only about half a pound in a few years. The most of mine at present will average about ¾ of a pound, and it is very much less trouble to dispose of them. If I should make any new cases this season, they would be arranged for half-pound sections, perhaps two stories of sections in one case.

By planting the red raspberry, bee-keepers would have the best bee-pasturage known, and a crop of fruit also. Raspberry has never failed to furnish honey here. Last season we had an abundance of white clover, but not a drop of early honey from it. But for the raspberry, my crop would have been slim. Indeed, I count it the richest and best honey in the world, and red clover is second best.

With a natural swarm of bees it works well to remove the old colony to a new stand and hive the new one on the old, as the parent colony usually contains much sealed brood that will hatch in a few days. But suppose a swarm is driven, and the old colony removed without making an examination. It might be that the colony contained but very little sealed brood, and much in the larval stage. The consequence would be, that nearly all of the bees would return to the new swarm, not leaving enough for housekeeping, and the colony would be ruined, or at all events worthless for the season, unless built up from other colonies. It is an easy matter to see how this might happen through loss of a queen, and after the young one commenced laying there would be nothing but larvæ and eggs in the hive.

Lockwood, N. Y.

STARVED BROOD.

An Experience with Starved or Diseased Brood, etc.

Written for the American Bee Journal

BY J. P. WYLIE.

In the spring of 1887 I had 45 very strong colonies of bees, but the season being so dry, the bees did not store any more honey than would keep them from starvation, although I believe that they must have starved the brood, as 17 colonies had more or less dead larvæ scattered over the combs, and when the hives were opened, they emitted quite a strong smell. I began to think that my apiary had the foul brood, so I began to get rid of it.

I killed the colonies that had the rotten brood, and burned the combs and bees, and saved the hives, putting them away so that the other bees could not get at them.

I put into winter quarters, in the fall, 28 colonies, packing them in chaff, as I always do, and out of the 28 colonies only 22 lived through the winter (the greatest loss in number of colonies since I have kept bees); those that were left did well enough until about swarming time, when I discovered about 4 more colonies with dead larvæ. I just burned hives, bees and all, and thought that I had cleared my apiary of the trouble; but it was not long before I found it in another colony, so I concluded to let it go, and see whether it would get better of its own accord or not. It got better, and I obtained two crates of honey from the 18 colonies, and saved 8 swarms, thus making 26 colonies to pack in chaff for wintering.

From the 18 colonies I got, on an average, 28 pounds of comb honey, and this was gathered from the smart-weed in the fall.

This is not a good locality for bees, as we have to rely upon the white clover and smart-weed, and the white clover was nearly killed out by the last two dry seasons; but last year there was a little alive yet, and I think that there will be some honey from it this year.

Prairie Center, Ills., March 12, 1889.

CONTRACTION.

Experience with Contracting Hives—Toads and Bees.

Written for the American Bee Journal
BY S. H. HOVIS.

Two years ago I purchased my first movable-frame hives; at that time the subject of contraction of the brood-chamber was being discussed, and I thought surely this is just what I want, when so many bee-keepers are advocating it in the bee-papers; so I adopted the contraction theory, having 10 colonies in box-hives. I transferred about half of them, giving them about 5 or 6 frames, and leaving the largest and best looking boxes, to see which would come out the best.

During the summer the bees in box-hives swarmed, and I put the swarms on 6 frames, and these with the others on movable-frames. I gave the best of care; and in return for my care and trouble, I expected the supers filled with nice honey in one-pound sections; but, alas, I was disappointed—not one gave me a pound of surplus, while, on the other hand, those in box-hives had the pleasure of taking care of themselves, which they did nobly, besides giving me some surplus, and were strong colonies when put into winter quarters.

With the above results I was not satisfied, but I placed the hives all in a row facing the southeast, with a shed over them, boarded up on the north side and at the ends, and packed all around with straw. I hoped that the reverse might be true in the spring.

All the colonies wintered, apple-bloom came, etc., and those in box-hives were strong and vigorous, and three of them stored some surplus in fruit-bloom; but the others were weak, and did not increase in strength like the former. After fruit-bloom the contracted colonies were so weak that a neighbor's bees robbed 4 colonies of them—they were too weak to defend themselves, so I gave them a thorough examination; one had a handful of bees and a queen, while others had increased to be fair colonies. I looked at the box-hives, and they were full of bees.

With these results, I took in the situation, and I said to the contraction theory, "Get thee hence; thou art an offense unto me;" and I cast the "demon" out, by tearing out division-boards, uniting colonies, and giving to each colony 8 or 9 frames; the result of this was that last fall, when buckwheat and fall flowers came, I had strong colonies, which gave me from 16 to 50 pounds of surplus each, with the brood-chamber full of winter stores.

I wish to add that the 2 colonies which gave the largest yield, were in box-hives, the honey being taken in one-pound sections. I use the Simplicity or Langstroth frame, and I am now making the hives with the brood-chamber just 12 inches inside, which is just right for 8 Langstroth frames, and I think that it will admit of 9 frames for brood-rearing.

The weather the last week has been very pleasant, and the bees have flown nicely for four or five days, although the snow is not all off yet along the fences and roadsides where it drifted; notwithstanding this, to-day (March 18) my bees were not only busy at work cleaning house, but they were busy carrying in pollen, which was beautiful, light yellow, and they came in well loaded with it. This surprised me, for I did not expect to see it for a month yet. It is certainly early for this latitude—the northwest corner of Pennsylvania.

Experience with Toads.

On a warm, moonlight night last August, about 10 o'clock, I walked around my hives to see if all was right. I lean a board from the ground to the edge of the stand of all my hives, so that heavily loaded and old bees can crawl up when they drop down before they reach the entrance. One hive was lower than the rest—about four inches from the ground, with a board in front; I noticed that a large toad had stationed itself on the board just in front of the entrance, and about four inches from it. My presence did not annoy it in the least, so I stooped down close to see what was going on. The bees were frightened, running up and down the front of the hive; the toad did not move, but every little while I could hear a kind of a smack, as is made with a person's lips.

The hive being shaded a little, and the toad one of those independent creatures that had things its own way, I went to the house and got a lantern; I turned the light on it when I was some distance off, then approached quietly until I was in close proximity, and watched closely.

The bees were running and buzzing around, and I could hear that smack very often, and see the toad's mouth open a little, and the bee directly in front of the toad would disappear, but so quickly that I could not account for it. All at once a bee came running out past the toad, and halted by its side; this was my opportunity to see where the bee went. The toad turned half around, bowed his head (I heard the same sound as before), its mouth opened a little, and the bee went somewhere, but I was *still* in doubt, unless the toad has a long tongue that it can use with lightning speed.

I cannot say where the bees went, for the toad did not spring at them, as the toad did that Mr. Smith mentioned on page 171; neither did it take the bees off the board with its mouth. Will some one please tell why toads act so differently? or was I deceived in my observations?

Pearl, Pa.

INTERNATIONAL.

The New Constitution, and the Meeting at Brantford.

Written for the American Bee Journal
BY R. F. HOLTERMANN.

I was almost afraid that the discussion on the new Constitution and By-Laws of the International Bee-Association was about to drop, for the time being. I believe that by a proper interest being taken now in the matter, we can meet at Brantford ready with all necessary changes, not occupy time which can be more profitably spent, and come to conclusions likely to be such as to require no further revision.

Dr. Miller objects to simply "International," yet thinks that "American" will screen him from anything beyond Canada and the United States. What about South America? I have no great objection to International, but if a departure from North American Bee-Association is advisable (and after reconsideration I doubt it), I think that International Bee-Association will do, and the next International will have to call theirs No. II. We have the field.

I like Dr. Miller's suggestion about fixing the time and place at the annual meeting, and giving "the executive power to change within a given time, if they saw sufficient reason for doing so."

But let me say right here, that Art. VII of the Constitution says that the President, Secretary and Treasurer shall constitute the executive committee; so the Doctor need not think that he is going to get out of his duties in that way.

Art VIII of the By-Laws, says: "A committee of five may be elected who shall have power, etc." I wonder where Dr. Miller is quoting from. I have the bound report as published by Mr. Newman, and doubtless this is correct.

Essays at Conventions.

I believe in them, to a certain extent. I should not like to see a meeting taken up by essays, and crowding out discussions. Essays can be boiled down—take about 8 to 10 minutes each—and lead up to a discussion,

lengthy and animated, concentrating our thoughts upon a certain line, and prevent rambling discussions. I must favor the right kind of essays.

About trying to get representatives from other nations to Brantford, I may say that I have had considerable correspondence upon the matter, and it has received attention in some of the leading European papers; but I have come to the conclusion that our Association is not in a condition to undertake such a matter this year. When we do undertake it, it must be done well, and in a way that the Association can feel proud of. Our meeting must then be occupied as little as possible with business, and we will require funds.

During the present year we must arouse greater interest in our Association; as far as I know, not one who was not at the last meeting at Columbus, has become a member of the Association. This should not be; and before the next meeting, an invitation will be sent directly to many who ought to be with us, and who ought to be members. Of course the list will be very incomplete, yet any who do not receive this notice, will, it is to be hoped, favor us with their presence, and all become members.

The surplus fund shall, I trust, remain in the treasury, and before many more annual meetings have been held, it is to be hoped, and I believe sincerely, that we will have a grand International meeting—one which for some time will give bee-keepers on more than one continent fresh food for reflection, and advance bee-keeping.

I have written to the Secretary of every district association in Canada, so far as I know, before they met in convention, urging them to send representative to Brantford at our next meeting, and I may say that already there is no doubt, if we have even only a medium season, we shall have a grand meeting. What is required now is, the addresses of all the secretaries of associations in the United States, so that they may be urged to do the same; for this I must depend upon the kindness of others.

We want representatives from at least every State association, and deputations to invite the associations to the next place of meeting. It will be seen that the hearty co-operation of many are required, and at once. Let us only make up our minds that success shall crown our efforts this year, and, with a fair honey season, we shall have a very large number of bee-keepers assembled.

Brantford, Ont.

[For editorial remarks, see page 211. —Ed.]

KA-CHING! IT'S SPRING.

Ka-ching! The balmy spring has come,
The sun shines warm on all below:
I thought the streams would surely run,
It seemed so warm within, Ka-choo!

Why, who had thought the wind so sharp!
It chills me, truly, through and through,
I wonder if the month of March
Is really spring? Oh, dear! Ka-choo!

I saw a bird this morning flit
Amid the boughs of yonder pine;
And so I thought I'd wait a bit
And sun myself. Ka-choo! Ka-ching!

Well, really, I'll not wander far—
Ka-choo! It seems so out of place
To sneeze so when the birds, so gay,
Are searching for a resting place.

—*Vick's Magazine.*

BEE-CANDY.

The Sholz or Good Candy—Honey and Pollen.

Written for the American Bee Journal

BY PROF. A. J. COOK.

There seems to be some doubt about the "Good" candy having been described previous to the discovery made by Mr. Good. There is no doubt but that Mr. Good re-discovered and re-described this, with no knowledge that it had already been successfully used.

If the reader will refer to Mr. Langstroth's excellent work, "The Hive and Honey-Bee," 3d edition, page 274, he will find the following:

"The Rev. Mr. Sholz, of Silesia, recommends the following, as a substitute for sugar candy in feeding bees:

"'Take one pint of honey, and four pounds of pounded lump sugar; heat the honey, without adding water, and mix it with the sugar, working it together to a stiff, doughy mass. When thus thoroughly incorporated, cut it into slices, or form it into cakes or lumps, and wrap them in a piece of coarse linen, and place them in the frames. Thin slices enclosed in linen may be pushed down between the combs. The plasticity of the mass enables the apiarist to apply the food in any manner he may desire. The bees have less difficulty in appropriating this kind of food, than where candy is used; and there is no waste.'"

As I have said, there is no doubt but that Mr. Good re-discovered this excellent method of preparing candy; and made it applicable to shipping; thus doing away with the bottle of water. So we still may keep his name. Can we afford to call it the "Good-Sholz candy?"

Gathering Honey and Pollen.

I should like to hear from others on Mrs. Chaddock's criticism on the way bees gather honey and pollen. I have observed quite carefully, and I believe that it is quite exceptional for bees to gather two kinds—either of honey or pollen—on the same trip.

Mrs. Chaddock says, "Go into the garden or orchard, and observe." That is just what I have done, and I have concluded from these observations that, though bees do very rarely gather from different flowers on a single trip from the hive, yet such action is exceptional, and only proves the rule that they do not do so.

I should like to hear from Messrs. Doolittle, Dadant, etc., on this point.

Agricultural College, Mich.

PRIORITY

Of Location Not a Simple Question.

Written for the American Bee Journal

BY S. T. PETTIT.

On page 234 of the *Canadian Honey Producer* is an interesting letter from the pen of Mr. J. E. Pond, in which he says: "The question of priority of location is one of the most simple yet brought to the attention of bee-keepers; yet some are attempting to make quite a bugbear of it. Considered in its simplest forms, it amounts to just this, and no more: Can any one who chooses, keep bees upon his own lands? This is all there is in the question, and discussion, no matter how long drawn out, can make nothing more, nothing less, of it."

I was a good deal surprised on perusing the strange position taken by our usually clear-headed friend; and now if Mr. Pond will kindly, at his leisure, on some fine warm, sunny, spring-like morning, call on me, I will accompany him across several sugar-bushes, or drive by the road, as he may choose, about three miles, and visit a friend who is now in the interesting transition state from the farmer to the bee-keeper. He has kept bees in a crude way for many years; has four sons, enough to do the farm work; hence his ambition to devote his time to improve upon his old ways, and make a little out of his bees.

Just last summer another man (a good man, for aught I know) purchased a small lot of land, built a house, and is planting an apiary near by the other man. Now it is quite clear, that this procedure means injury or disaster to both, for profits on bee-keeping now-a-days come only to those most favorably situated.

Now when I tell Mr. Pond, that Ontario has hundreds of unoccupied fields for honey-producing purposes just as desirable as this one, I think that he will agree with me that this

friend should have located in some field not preoccupied by another.

This one example is enough; many more could be given. It does seem to me, that there is a fitness and fairness of things backed up by the best interests of the intruding party, that should influence bee-keepers to observe the priority-right principle. So it will be seen that I cannot agree with Mr. Pond, that the simple question, "Can any one who chooses keep bees upon his own land?" covers the whole ground of the priority-right prineiple; evidently that conclusion has been rather hastily reached.

Very true, the doctrine of the survival of the fittest will usually *kill off* all but one in most localities; but, oh! the loss, the cruelty, the heart-burnings, and the unseemliness of the whole unbrotherly, inhuman process; enough has come under my own personal observations to fill a volume, and sadden the hearts of a nation of bee-keepers.

When in a discussion I hear any one hurl at his opponent "selfishness," and the like, I generally smile, and soliloquize thus: "Abuse is not arguments—*they* are exhausted.

Belmont, Ont.

BEE-CELLARS.

Even Temperature of Under-Ground Cellars, etc.

Written for the American Bee Journal

BY REV. STEPHEN ROESE.

The weather here is very soft and open, and the bees in my above-ground bee-house are getting very uneasy, so that the floor is quite covered with dead bees. Had I known that the winter would have been so open, I would surely have left them on the summer stands; but as it is, I will have to make the best of it, and do the next best thing. I fear that if settled weather of some kind does not soon come, some colonies will get very weak, and heavy spring dwindling will be the result.

It is my candid opinion that underground bee-cellars furnish the most even temperature for bees to winter in successfully, and, if life is spared, I shall prepare one for next winter. It is hoped that the pleasing key-note—the joyful hum of the busy bee—will soon greet the apiarist's ear, and banish all fear of spring dwindling—a disaster so much dreaded in the northern latitude.

The BEE JOURNAL is a welcome guest, and deserves credit for punctuality and candor in bringing that which is wholesome and good; and its contributors and aids must surely be a class who do more than eat, drink, and sleep; for late improvements and modern devices speak louder than words. If legislation and law-making require brains, most surely successful bee-keeping requires intellect and mental exercise to study the ways and nature of the industrious bees, for the benefit of mankind.

Maiden Rock, Wis., Mar. 17, 1889.

SECTION-PRESS.

Press for Folding Sections and Fastening Foundation.

Written for the American Bee Journal

BY C. THEILMANN.

I find the following on page 171 of the AMERICAN BEE JOURNAL for 1888, written by Ed. S. Eden:

"It is somewhat interesting to me to read the different replies to my letter on fastening foundation in sections, as published on page 790 of the BEE JOURNAL for 1887; each one claims that his method, or machine, is just what is wanted; but I fail to see as yet (even after reading Mr. Alpaugh's letter on page 125) that the point of satisfaction is reached. One of the faults with the majority of machines is, that they cannot be adjusted to different sized sections; some machines (and Mr. Alpaugh's is one of them) can only fasten foundation into 4-piece sections, and that before the sections are put together. Each machine must be made for a certain size of section," etc.

I feel it my duty to say something about the Alpaugh foundation fastener and section-press, as I put all the foundation into my sections to perfection, and folded the sections perfectly at the same time last season, with this splendid combined machine. I know of no machine that fastens foundation more perfectly and more speedily than this machine does it, and at the same time fold the sections perfectly square.

My sections are all one-piece, and when folded by the machine, the foundation is sealed in by a steel blade, which is heated by a small lamp made out of a small tin cup. I have used about one pint of Signal Service oil (costs 15 cents) to fasten about 12,000 full sized pieces of foundation into sections.

I have put out my bees 20 days earlier than last year. I put out 217 colonies yesterday, and all are in fine condition. To-day (March 21) they brought in pollen from the soft maples, which are in bloom. Last year it was April 10 when the first pollen came in. The weather is fine, and farmers have commenced seeding.

Wabasha Co., Minn.

ONTARIO.

Proceedings of the Haldimand Convention.

BY E. C. CAMPBELL.

The annual meeting of the Haldiman Bee-Keepers' Association was held at the Town Hall in Cayuga, on March 1, 1889.

Those present were Jas. Armstrong, President, in the chair; Messrs. W. Kindree, D. Anguish, Israel Overholt, M. Schisler, F. Rose, Isaac G. Wismer, O. Fathers, Robt. Coverdale, James Jack, and the Secretary.

The minutes of the last meeting were read and confirmed.

The election of officers was the first business, when the following were elected: President, James Armstrong; Vice-President, F. Rose; Secretary-Treasurer, E. C. Campbell. Directors, Isaac Overholt, Wm. Kindree, W. Atkinson, and F. Mehlenbacher.

The President read extracts from the By-Laws of the Ontario Bee-Keepers' Association, when it was moved by Mr. Campbell, seconded by Mr. Overholt, that the Secretary be authorized to send $5 to the Ontario Bee-Keepers' Association for affiliation with that Society for 1889. Carried.

It was moved by Mr. Rose, seconded by Mr. Overholt, that the President correspond with the Secretary of the Ontario Bee-Keepers' Association with reference to securing a lecture from some prominent bee-keeper at our next meeting.

Pasturage for Bees.

Mr. David Anguish, President of the Brant Bee-Keepers' Association, read the following short essay on bee-pasturage:

I know by experience that there is more importance in pasturage for bees than there is in the management of the apiarists. The last season's crop of honey will explain what I mean better than I can. You are all aware that I got a very fair yield of honey when you all failed here in Haldimand. I do not pretend to say that I am a better apiarist than there is in Haldimand county.

Brant county gave a very fair yield of honey, with the exception of a few localities in and around the city of Brantford. There was one bee-keeper in the county of Brant, who, from one colony in the spring, increased to four, all very strong, with plenty of honey to carry them through, and he got 125 pounds of surplus comb honey in one-pound sections; it was all gathered from Canadian thistle and buckwheat.

I think it would be advisable for every bee-keeper to try some of the

Chapman honey plant. I know it would do well on heavy land, and it comes in bloom when there is nothing else for the bees to work on; and it would be advisable to sow buckwheat, if for nothing else than for the bees.

Some may object to this, but I am pretty sure if you would get some of the Japanese buckwheat and try it you would never be sorry that you did so. Buckwheat is like all other honey plants, if the weather is favorable the bees will gather honey very fast. I had one colony gather 11 pounds in one day, from that plant alone.

DAVID ANGUISH.

The President agreed with Mr. Anguish on the necessity of having good pasturage for bees; and no matter how good an apiarist one may be, if there is no pasture for the bees the result will be a failure.

Mr. Rose moved 32 of his colonies to the county of Norfolk, where there was a large quantity of Japanese buckwheat, and they gathered sufficient honey to winter 64 colonies. In answer to Mr. Overholt, Mr. Armstrong said that bees gathered honey from the second crop of red clover, when other clover is scarce.

It was moved by Mr. Anguish, seconded by Mr. Rose, that the next meeting be held at Cayuga, if a lecturer is secured; if not, at Nelles Corners, on the last Tuesday in May.

E. C. CAMPBELL, *Sec.*

GRAHAM FLOUR.

Feeding Rye Meal and Graham Flour to Bees.

Written for the American Bee Journal

BY ALLEN LATHAM.

On page 179 is a request concerning rye meal. I am not going to tell how to feed rye meal, but I will describe the manner in which I feed Graham flour.

Now, why feed Graham flour instead of rye meal? Last spring I placed some Graham flour beside the meal which I had always used before, and I noted the result. Before two hours had passed, there were but few bees on the meal, and on the other hand, the flour was crowded with them—indeed they took to it as they would take to pollen. "No more rye meal for me!" I said, and I fed flour as long as the bees needed it.

As to the way of giving it to the bees: Dr. Miller's is a good one—I have practiced it myself until this season; but this spring I am not at home more than once in two or three weeks, and there is no one in my family who will touch "the bees."

When I was at home a fortnight ago, I took a large box 5x4x4 feet, and leaving one side open to the south, I made the top water-proof, nailed some cleats on the bottom (so that the meal cannot collect in one spot), and left about five pounds of Graham flour there. It is early now, and I thought that five pounds would be sufficient. I can get my brother to replenish it on some dark night.

The best way to start the bees on the flour is, to toss a small amount right in front of the entrance, where the bees will have to go over it.

Cambridge, Mass.

CONVENTION DIRECTORY.

1889.	*Time and Place of Meeting.*
Apr. 23.—	DesMoines County, at Burlington, Iowa. John Nau, Sec., Middletown, Iowa.
May 1, 2.—	Texas State, at Greenville, Tex. G. A. Wilson, Sec., McKinney, Tex.
May 4.—	Susquehanna County, at Montrose, Pa. H. M. Seeley, Sec., Harford, Pa.
May 21.—	Northern Illinois, at Pecatonica, Ill. D. A. Fuller, Sec., Cherry Valley, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Bright Prospects for 1889.—J. V. Caldwell, Cambridge, Ills., on Mar. 22, 1889, says:

My bees have been taken out of the cellar in good condition. I lost only 2 colonies out of 120. The prospect for a good season is bright, in my opinion. The past two seasons have sorely tried the pluck of bee-men in this locality, but we hope for better things in the future.

Working on Maple Sap, etc.—H. M. Seeley, Harford, Pa., on March 22, 1889, writes:

There has been a change made in the place of holding the next meeting of the Susquehanna County Bee-Keepers' Association. It will be held at the Tarbell House, instead of the Court House.

My bees are working to-day on the sap of the hard maple, as busily as they ever work in the summer. I have not lost a colony, although I am having trouble enough in other ways. My father and mother were both taken sick one week ago, and now father is dead, and mother is but a very little improved; still we hope for the best.

Looking for a Successful Year.—Geo. F. Robbins, Mechanicsburg, Ills., on March 21, 1889, writes:

The clover is injured very little, if any, here. We had no prolonged drouth last summer to kill it out. The winter has been mostly mild and dry, so that freezing and thawing, and tramping by stock has not affected it much. My bees have wintered well. I put 44 colonies away for winter in poorer condition than ever before; none have died, one is queenless, and the most of them are good, strong colonies. The season so far is opening beautifully. If the weather does not turn out to be too dry, I will look for a successful year.

Bees Doing Well, etc.—S. Burton, Eureka, Ills., on March 25, 1889, says:

My bees seem to be doing well. They have been gathering pollen for past few days, and seem to be strong and active. My loss is 4 colonies out of 32. The four were late swarms. I think that the prospect for a honey crop is very good now.

Early Pollen-Gathering, etc.—J. Blackhall, Hobart, Ind., on Mar. 25, 1889, says:

My 58 colonies of bees are all very strong, and carried in natural pollen on March 22—the earliest of any year in my experience.

Alsike and White Clover, etc.—Samuel King, Jr., New Paris, O., on March 17, 1889, writes:

The past winter has been a mild one, the temperature being 3° below zero only once. Although the winter has been mild, the bees have flown only a few times during the time. The past 7 days have been beautiful—the temperature ranging from 65° to 72° in the shade. My bees have wintered unusually well. I took 6 colonies out of the cellar on March 14 in fine condition. They gathered pollen from soft maple on March 16 very freely. There is a large number of maple trees ranging from ¾ to 1¼ miles from my location, and it is quite a treat for the bees so early in the season. I have 6 acres of Alsike clover, and I mowed a part of it last year; I am very much pleased with it as a honey-producer, and also for hay. There is a fair prospect for white clover in this locality.

I commenced keeping bees in 1867, receiving primary instructions in bee-culture from a neighbor bee-keeper,

who was thoroughly acquainted with the business at that time. I read A. J. King's and Rev. L. L. Langstroth's books, and last of all I got the "A B C of Bee-Culture." I am now reading the AMERICAN BEE JOURNAL, and do not see how I could do without it. I have not kept more than from 35 to 40 colonies at one time, but I have produced a good deal of comb honey since keeping bees, and received a fair price for it. I have never been able to supply the home demand. I produce comb honey altogether.

Mild Weather—Bees all Right.—Leslie Stewart, Jefferson, N. Y., on March 20, 1889, writes:

The weather is very mild here now, though we have had some severe weather at times; but take it the winter through, I think that it has been the most open one that I have ever known. The bees appear to be wintering much better than usual, but of course the next month will tell the story. Last year it was April 25 before I removed my bees from the cellar, but I think that the weather will be warm enough to safely remove them this season by April 1. Those bee-keepers who are wintering their bees out-of-doors, report the bees in good condition.

Bees Wintered Nicely.—John Scherer, Lena, Ills., on March 18,1889, says:

All of my bees wintered nicely excepting 2 colonies. I have examined them as closely as I could, and they had lots of honey and pollen. They were all in one bunch, with lots of honey around them. I would like to know what caused their death. The other bees were flying nicely on March 15. I have them packed in chaff yet, and I will keep them there for a while yet.

Manzanitas—Now Extracting Honey.—S. L. Watkins, Placerville, Calif., on March 16, 1889, writes:

All indications at present point to a prosperous honey season in this part of California this year. All colonies are carrying in pollen and honey at a wonderful rate. The willows and alders along the margins of streams are in bloom, and furnish an abundance of pollen, while the manzanitas that clothe the mountainside keep the bees roaring over their fragrant bell-shaped flowers from morning until night. The manzanitas are very rich in nectar. The honey, when first gathered, is very thin, and will run from the combs with the slightest jar. It generally candies about six weeks after gathering. All the colonies are breeding up rapidly; hive-entrances are crowded with young bees out suning themselves; and others are on the wing in front of the hive, marking their home preparatory to starting after their first load of pollen, or honey, as the case may be. Several colonies of Carniolan bees filled their hives so full of honey last fall, that I had to take away several full frames, and insert empty combs in their places to give breeding-room. I shall begin extracting in a few days.

Wintering in Good Condition.—N. M. Hollister, Fayetteville, Ark., on March 22, 1889, says:

Bees here are coming through the winter in good condition so far. A few of my hybrid colonies are the strongest I ever saw, for the time of year. I like the weekly visits of the AMERICAN BEE JOURNAL very much.

De-Queening Colonies.—Friedemann Greiner, Naples, N. Y., on Mar. 23, 1889, writes:

Forty-two years ago, Rev. Dr. Dzierzon first spoke of the practice of "de-queening a colony of bees to increase the honey crop." Baron von Berlepsch afterwards experimented in this direction, and after some experimenting, gave up the practice as an unsafe one, in 1856. Of late, we find nothing of the kind mentioned in the German bee-literature, which fact leads to the conclusion that the practice is not a popular one at present.

Rye Flour for the Bees, etc.—Mrs. L. C. Axtell, Roseville, Ills., on March 26, 1889, says:

In our apiary we have entirely discarded the feeding of meal or flour to bees, as it is considerable bother and some expense; and we think that our bees are better off without it, as they had better stay in the hive until they can get natural pollen, in this vicinity. I would like to know who of our extensive bee-keepers still practice it. We are much more successful in producing and selling comb honey than extracted honey.

I opened the hives of 4 colonies this forenoon, that were wintered out-of-doors; one had 4 combs with brand-new sheets of capped brood; two hives had 3 sheets; one had two sheets of capped brood; and all had some capped drone-brood and plenty of honey. The bees apparently have not consumed as much honey as is usual in the winter, so we consider the prospect for a large yield of honey very favorable, so far as the bees are concerned; but we are having very dry weather now, and our honey crop will depend upon whether we get sufficient rains or not. All our bees that were wintered in the cellar, came out strong, with no loss.

Small Loss in Wintering.—J. Van Deusen & Sons, Sprout Brook, N. Y., on March 26, 1889, write:

The winter has been very mild, and there are prospects for an early spring. The loss of bees in wintering has been very light.

Carrying in Pollen.—F. Hentrick, Wall Lake, Iowa, on March 26, 1889, says:

I have taken my bees out of the cellar. They did not do very well. I saved one colony out of six, and one on the summer stands, making two. They are doing well now. They carried in pollen on March 23 and 24, which is early for this latitude. I like the AMERICAN BEE JOURNAL, and would not do without it. Some of my neighbors' bees are doing well, on account of reading the BEE JOURNAL. I hope that I can handle bees better in the future.

Honey from Cappings.—Mark Coffin, Milton, Ky., on March 23, 1889, writes:

Query 617, on page 149, asks about the best way to get the honey out of cappings, and I read carefully the answers from the veterans, expecting that some, or at least one, of them would give my answer. I thought it strange that some of them had not tried it; then I thought that perhaps they had, and found it worthless; but then, "wise men do not always think alike." As I have been working for comb honey, I have had no experience in extracting, and have had no cappings to "squeeze." My way of doing it would be, to take a frame (of course I would want two) and tack on No. 16 wire-cloth on one side, fill it with cappings, tack on a thin board on the other side, or wire-cloth on both sides (so that it could be turned, as in extracting a comb), put it into the extractor, and sling out the honey. If the veterans have tried this, and find it will not work, let some of them say so, and save me and others the trouble of trying it.

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BUSINESS MANAGER.

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Honey and Beeswax Market.

HONEY.—White 1-lbs., 16c.; fall, 14c.; 2-pounds, white, 14c. Extracted, scarce at 8@8½c.
BEESWAX.—27@22c.
Mar. 28. CLEMONS, CLOON & CO., cor 4th & Walnut.

CHICAGO.

HONEY.—Our trade is light; no large lots on hand and what there is consists chiefly of dark comb, and not salable in quantities. Choice white comb, 1 lb. sections, 16@17c.; dark grades from 10@12c. Very little demand for extracted, but prices remain at 7@9c., according to quality and package.
BEESWAX,—22c. R. A. BURNETT.
Mar. 25. 161 South Water St.

DENVER.

HONEY.—White, in 1-lb. sections, 16@18c. Extracted, 7@10c.
BEESWAX.—18@20c.
Mar. 26. J. M. CLARK & CO., 1409 Fifteenth St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 16@17c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c. If damaged and leaky, 10@12½c. Extracted, white, in barrels, 8@8½c.; ½-barrels, 8½@9c.; amber in same, 7@7½c.; in pails and tin, white, 9@9½c.; in barrels and ½-barrels, dark, 6@6½c. The demand is fair.
BEESWAX.—20@22c.
Mar. 27. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—Market is bare of comb, except some small lots of buckwheat which is selling at from 10@12c. No buckwheat extracted. Cuba and San Domingo extracted 67@70c. per gallon.
BEESWAX.—24c.
HILDRETH BROS. & SEGELKEN,
Mar. 25. 28 & 30 W. Broadway, near Duane St.

ST. LOUIS.

HONEY.—Demand limited to local wants, which are small. We could sell some to country points in barrels and ½-barrels at 6½@7c. for extracted; in cans, 7½c.
BEESWAX.—21c. for prime.
Mar. 25. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½@7 cts.; amber, 5½@6c. Comb, white 1-lbs., 13@14c.; 2-lbs., 10@12c. Demand for extracted is good; for comb, limited. Prospects are not as good for honey as in 1888.
BEESWAX.—Scarce, at 18@22c.
SCHACHT, LEMCKE & STEINER,
Mar. 15. 16 & 18 Drumm St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 18@20c.; best 2-lbs., 17@18c. Extracted, 8@9c.
Sales are good, but market is short of fancy white comb honey.
BEESWAX.—24c.
Mar. 22. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 15@16c. Sales slow. Extracted, 8@9c. Demand small, prices lower.
BEESWAX.—22@23c.
Mar. 22. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 15@16c.; 2-lbs., 12@31c. Good dark 1-lbs., 12@13c.; 2-lbs., 10@11c.
Mar. 21. S. T. FISH & CO., 189 S. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@15c. Demand is slow, and prices low.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Mar. 21. C. F. MUTH & SON, Freeman & Central Av.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

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CONTENTS OF THE APRIL NUMBER.

One Hundred Years a Nation—by the Editor, 3
Illustrations: American Eagle—Our First President—Lady Washington—Independence Hall, Philadelphia, 1776—Looking up Pennsylvania Avenue to the Capitol, at Washington, D.C.—Taking the Oath—President Harrison—Waiting for the Procession—Vice President Morton—Procession on Pennsylvania Avenue—Grand Review of the Army—Inaugural Ball.
In the Spring-Time, (Illustration)..... 9, 31
The Challenge Accepted; or, How Kate Clifford Won,..... 11
Illustration: Aunt Jane's Advice.
Armed-Flies, Bee-Killers, Crane-Flies, Gad-Flies, etc..... 15, 31
Four More States 16
Illustrations: North Dakota—South Dakota—Montana—Washington.
Fashions—by Olive Harper..... 17
Illustrations: Model Lace Costume—Traveling Cloak—Utility Waist—Latest style of Hats.
Death of Dr. D. Willard Bliss, Garfield's Physician (Illustrated)..... 18
The First American Pilgrimage to Palestine (Illustrated) 19
Our Young Folks:—Mind and Money—by George W. York..... 20
Realizing the Danger from Beneath..... (Illustration)..... 20, 31
The Puzzler (Illustrated) 21
Music:—Song, "Maggie, The Cows are in the Clover." 22
A Moment of Anger; or, The Quarrel of Mr. and Mrs. Brownlow..... 24
Illustrations: "Permit Me to Remark to You, Sir"—"I Have Sent for You."
Poetry:—Weighing the Baby—by E. Secor, 26
Religious:—Notes of Interest—He Found Heaven..... 27
Poetry:—Morning-Glories "Over There"—by Albion Mary Fellows..... 27
MISCELLANY:—
An Unfortunate Speech..... 30
Can Stand It Now..... 19
Catholic Journalist (Illustrated)..... 30
Clung to his Tormentors 30
Commend Us to the Arab 10
Concerning the Nobility (Illustrated) 18
Enchantment 10
General Marston (Illustrated)..... 29
Goaded to Desperation 19
Gubernatorial Head-Quarters..... 19
Interesting Paragraphs 10
On the Reservation (Illustrated)..... 17
Rather Quiet in His Movements 29
St. Patrick's Jawbone 21
Saving Wear and Tear..... 29
Slightly Mixed 17
The Farmer and the Bee 30
The Truth About It..... 19
Why She Married the Tenor..... 30
America's Monument—by Walter Wellman 27
Illustrations: Packing the Elevator Car—We'll Wait for You at the Top—Where He Waited—500 Feet Above the Earth.
Hot Honduras—by F. W. White..... 29
Crown Prince Rudolph's Death (Illustrated) 30
EDITORIAL ITEMS: 31, 32
The Publishers—In the Spring-Time—The Addresses—Realizing the Danger—A Rich Treat—This Number as a Sample—Various Insects—Agriculture in the Cabinet—Useful Books—Our Reputation and Standing—Our Type—Four New States—Our Premiums.

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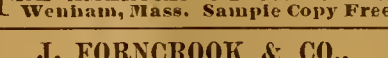

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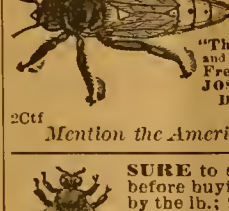

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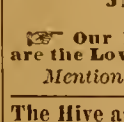

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. April 13, 1889. No. 15.

EDITORIAL BUZZINGS.

Birds sing to the heart—to yours and mine—
In spite of chilly weather,
They sing of hopes—human, divine—
Twain spirits share together.

They sing of love heart-warm and true,
All thro' the balmy weather,
They sing till high in heaven's blue
The soul floats like white feather.
FRANCES ADAIR, in Inter-Ocean.

We Regret to learn that Mr. Isaac Hopkins, editor of the *Australasian Bee Journal*, is indisposed, and has had to cease all business for a time. Mr. O. Poole is installed as temporary editor, and manages it quite well. The AMERICAN BEE JOURNAL extends its sympathies to Bro. Hopkins, and hopes for a speedy restoration to health.

Beeswax.—Mr. W. R. Henwood, of Morven, Ont., asks how to separate beeswax from tallow and rosin. Tallow renders the wax soft, and emits an unpleasant odor when being melted; and rosin makes the fracture smooth and shining instead of granular, and may be dissolved in cold alcohol, while the wax remains untouched. We know of no way to separate beeswax from tallow. Such wax is fit only for candles or grafting-wax.

Queen-Excluding Point.—H. L. Hughes, of Lime Springs, Iowa, on April 4, 1889, asks this question:

MR. EDITOR:—Will you please answer this question through the AMERICAN BEE JOURNAL: What is the space that will prevent the queen from passing through, but will allow the workers to pass?

It is quite difficult to decide the *exact* size to exclude a small queen and yet admit a loaded worker—but it is generally agreed that nine-fiftieths of an inch is about right; that is a trifle smaller than five-thirty-seconds of an inch.

Mustard and Rape.—A correspondent in New York asks these questions:

How are rape and mustard as honey-plants, with regard to both quality and quantity of honey? Are they good for anything else besides honey? When should the seed be sown? Of the different species of mustard, which is the best? Have hollyhocks honey in them?

We reply: Chinese or black mustard yields considerable nice honey. Sow early in the spring, broadcast 25 pounds to the acre, or drill it in, 8 or 10 pounds to the acre; cultivate to keep the weeds down at first, later it will kill out the weeds.

Rape yields good honey; sow it about four weeks before you want it to bloom.

Holly yields excellent honey.

Exhibits of Honey-Plants.—Mr. Julius Moesch, Indianapolis, Ind., asks us to state in the AMERICAN BEE JOURNAL how to arrange a collection of honey and pollen plants for fairs. He says: "As some of them bloom in the spring, shall I press a leaf and blossom of each plant?"

In brief reply we remark: Consult Cook's Manual concerning the time of bloom. Collect the leaves and blossoms when the plants are as dry as possible, and spread them out between newspapers, or better, between thick felt carpet-paper. Place a weight on top. When dry (in from 10 to 15 days), mount them on heavy book-paper, by fastening them bodily to the sheet by thick mucilage. To preserve them from insects, apply a solution of corrosive sublimate, using a camel's-hair brush to all parts of the specimen.

Friend Gravenhorst, whose biographical sketch and portrait appeared in the BEE JOURNAL for Nov. 14, 1888, writes thus in a private letter:

You have honored and delighted me by publishing that biography, for German bee-keepers are very jealous of English and American methods, and apicultural inventions, which I and a few others delight to defend.

We spent several days in company with friend Gravenhorst ten years ago this summer, and found him among the foremost of the progressive bee-keepers of the present century.

The Many Friends of Mr. N. W. McLain, late special agent of the United States Department of Agriculture, in charge of the Apicultural Station at Hinsdale, Ills., has been chosen by the Board of Regents of the Minnesota State University, Director of the State Agricultural Experiment Station, and Professor of Agriculture, in charge of the Station and State Experimental Farm, at St. Anthony Park, Minn., four miles from Minneapolis, and six miles from St. Paul. He has already taken charge of the Station, and his address will hereafter be "St. Anthony, Minn." We congratulate Prof. McLain upon his appointment to such a responsible position.

A Compliment.—The biographical sketch and portrait of Mr. Eugene Secor has called forth considerable comment. Among others we will enumerate two from his own State. The Winnebago *Summit*, for March 14, 1889, has this to say:

The last number of the Chicago AMERICAN BEE JOURNAL, publishes a portrait and biographical sketch of our townsman, Mr. Eugene Secor. The portrait is life-like, and the sketch is well written. Mr. Secor is a well-known authority on the subject of bee-keeping, and has shown by actual results his knowledge on this important industry. He has been a correspondent of the JOURNAL for ten years past, and has written many good things, both in prose and rhyme. In the sketch is incorporated a rythmical description of the Bee-Convention in Chicago in 1886, which is exceedingly well written. Mr. Secor looks well in print, and ought to feel complimented at being termed the "Poet Laureate of Apiculture."

The Iowa *State Register* for March 22, 1889, gives this notice:

A WORTHY COMPLIMENT.—The last AMERICAN BEE JOURNAL of Chicago has a good picture of a worthy citizen of Iowa, Eugene Secor, Esq., of Forest City. It also has a lengthy biographical sketch of Mr. Secor's public services, as well as his eminent success as a bee-keeper. Mr. Secor is well known all over Iowa, and is highly appreciated. He has faithfully discharged the duties of nearly every office in Winnebago county, and has had various stations of honor and responsibility in numerous societies and organizations. His literary talents are of a high order, and his poetic genius flashes out brightly on frequent occasions. And yet he is eminently a practical man, and usually makes a grand success in whatever he puts his hands to. He is one of Iowa's good practical men, who can be loved and trusted in every department of industry.

We are glad to learn that our friend Secor is so favorably known at home, and that the notice we gave him is appreciated by his many friends.

Down East the prospect for spring is thus described by J. H. Larrabee, Secretary of the Vermont Bee-Keepers' Association, on the 2d inst.

We are having a very favorable spring for the bees. Soft maples will be open in a day or two. With the bees in good condition, clover plenty, and the blooming year for basswood, you may hear from Vermont in 1889. My 99 colonies have come through with the loss of only one, by queenlessness; indeed bees all through the State are in good condition.

In the West the weather has been colder during the past week than it was in February—and the early spring theory has had a set-back.

Mayor Heddon is the new title won by our friend, James Heddon, at Dowagiac, Mich. He was elected by a small majority over one of the most popular men in the city. Mr. A. M. Moon was also elected Justice of the Peace in that city at the same time. Mr. M. is son of Mr. A. F. Moon, the "father" of the "North American Bee-Keepers' Society," and at the time of his death the late editor of Moon's *Bee World*, published at Rome, Ga. Bee-men are popular in Dowagiac. The AMERICAN BEE JOURNAL offers congratulations.

GLEANS OF NEWS.

Spring Work.—A correspondent in the Ohio *Farmer* gives these hints about seasonable spring work in the apiary :

There are many fine days from the first of March until spring fairly opens when we can handle bees in perfect safety. I have found to my entire satisfaction that there is no time during the year that my attention is more demanded than during March and April. These two months are the key to large honey crops, and I must have my bees in such shape at this time that I can attend to their wants.

I endeavor to put my bees in the best possible coodition for safe wintering during the fall months, but at my regular time of making examination during the following March I have never failed to find that attention was needed, and often many colonies are saved just at the nick of time.

I may have been very particular to give each colony in the fall the necessary amount of provisions, but from some cause I am not able to explain, many will consume almost their entire stores by the following March, while others have abundance in reserve. Hence such colonies must be provided with provisions, or they will starve long before spring sets in.

While it is a fact that food cannot he provided in winter weather in some forms, it can be in perfect safety in others, and not only in perfect safety, but it is very beneficial to healthy colonies, and very healing to those affected with diarrhea. This most dreaded disease generally shows itself in March, and fine days, together with careful manipulating, will bring such colonies through.

All colonies badly affected thus should be placed upon clean combs and provided with candy made from pure granulated sugar. This candy is the only safe winter food we can give bees.

Liquid food of any kind fed to bees during winter is very damaging to them. It tends to produce diarrhea, while this candy referred to will tend to heal it.

After the weather has become broken,and the bees can get a good flight once or twice a week, we can safely feed liquid food, and we should commence as soon as possible by feeding a little to every colony once a day.

From this time forth all depends entirely upon our management as to the force of bees we have on hand ready for the work when the harvest comes. By judicious feeding to stimulate brood-rearing, we can easily have our force double what it would otherwise have been if allowed to take their chances. Large crops of honey wholly depend upon the strength of the colonies, not upon the numbers in the hive.

Catalogues for 1889 are on our desk from—

J. W. Bittenbender, Knoxville, Iowa—4 pages—Bee-Keepers' Supplies.

S. W. Morrison, M. D., Oxford, Pa.—4 pages—Carniolan Queens.

Hulbert Fence & Wire Co., 904 Olive St., St. Louis, Mo.—24 pages—Fencing Wire-Work, for Residences, Cemetery, or Public Grounds.

W. E. Clark, Oriskany, N. Y.—26 pages—Apiarian Supplies.

Martin & Macy, North Manchester, Ind.—12 pages—Bees, Apiarian Supplies, Poultry, Plants, etc.

Rumsey & Co., Seneca Falls, N. Y.—16 pages—Spraying Pumps.

Morehouse & Annis, Rochester, N. Y.—8 pages—Garden, Field and Flower Seeds.

W. E. Clark, Oriskany, N. Y.—28 pages—Bee-Keepers' Supplies.

The Bees are Swarming Over.—On page 196 was published a pretty melody, which, no doubt, delighted many a bee-keeper's family ; but to make the words more appropriate for the apiarian home, they have been parodied by Geo. W. York as follows, and now all bee-keepers can join heartily in the song :

I love to wander by the brook,
That winds among the trees,
And watch the birds flit to and fro—
But hate the hum of bees ;
'Tis my delight from morn till night,
To ramble on the shore,
But often there my mother's voice
Comes from the kitchen door—

Chorus—Maggie, Maggie,
The hives are running over,
The bees begin to swarm ;
Go and hive them, Maggie,
Before they leave the farm.

I'm not allowed to have a beau,
Except upon the sly ;
So yesterday he came and took
Me far from mother's eye ;
We strolled along so lovingly—
From bees far out of reach—
When just from out that kitchen door,
Came that unearthly screech—
Maggie, Maggie, etc.

He took me to a country fair—
Went up in a balloon ;
Says he to me, "We'll go and see
The man up in the moon ;"
We drifted over towards our farm,
And never thought of bees ;
But suddenly I heard a voice
Come far up through the trees—
Maggie, Maggie, etc.

That music on page 196 was "a treat" to our subscribers, unannounced and unexpected, and we find that it struck the popular chord. Many have written to thank us for the surprise, and asking us to insert more music occasionally. The following from friend C. P. Dadant is only a fair sample of many others :

Please send us another copy of No. 13 of the AMERICAN BEE JOURNAL for my daughters. They find that tune very nice, and wish you would occasionally put in another such a treat.

Molasses for Feeding Bees in the Spring.—Mr. W. S. Peck, of Stafford, N. Y., asks the following questions to be answered in the AMERICAN BEE JOURNAL :

Is New Orleans or any other cane molasses fit to feed bees in the spring ? What is the cheapest good feed for bees ?

We answer : When the bees are flying freely in the spring, anything that the bees will take will not be very objectionable ; so that you can feed them molasses *then* without much danger. On general principles its use cannot be recommended. Sell the molasses and buy sugar, if you have no honey to feed the bees.

Chapman Honey-Plant Seed.—The United States Commissioner of Agriculture has a quantity of the Chapman honey-plant seed for free distribution. Applicants desiring packages of the seed will be supplied while the seed lasts, in the order of their applications. The request for seed should be addressed to the United States Commissioner of Agriculture (Seed Division), Washington, D. C.

What Apiarists Say about the April number of the ILLUSTRATED HOME JOURNAL, which they have just received, may be ascertained by the following which are samples of the multitude :

J. E. Pond, of North Attleboro, Mass., has this to say of it: "The ILLUSTRATED HOME JOURNAL is received. The work is simply superb, as a specimen of typographical execution. As a journal for the home it is first-class, clean, interesting, and instructive, not only an ornament to the library or drawing room table, but a means of giving to many homes a much-needed source of amusement, as well as instruction, both moral and secular. To those who know you, the JOURNAL seems just like you. For the purpose it is intended, I know of none that are quite up to it."

Dr. C. C. Miller, of Marengo, Ills., writes thus: "Well, well; the editor and publisher of the good old AMERICAN BEE JOURNAL is now publisher of a literary magazine. Well, you were born a publisher; so I am not surprised to see it gotten up in such beautiful style, on paper that is a pleasure to handle. I wish it great success."

Dr. G. L. Tinker, of New Philadelphia, Ohio, writes : "The April number of the ILLUSTRATED HOME JOURNAL is received. It is beautifully printed and illustrated, and is full of choice and instructive reading-matter for the family. It is deserving of a wide circulation, for it stands second to none of the popular monthlies."

Mrs. Mahala B. Chaddock, of Vermont, Ills., expresses her opinion thus: "I have read the April number of the ILLUSTRATED HOME JOURNAL through, and pronounce the workmanship excellent, and the matter good, cheerful and useful—fully up with the times—and I wish you success in publishing it. I send you a short story and some poetry for the next number."

Charles Dadant & Son, of Hamilton, Ills., write thus: "The ILLUSTRATED HOME JOURNAL is indeed very nice, and after having seen it, we want it regularly. We compliment you on its appearance."

N. W. McLain, Director of the Minnesota State Agricultural Experiment Station, St. Anthony Park, Minn., writes: "I like your new magazine, the ILLUSTRATED HOME JOURNAL, and I hope you will find it very profitable. I shall have pleasure in contributing an article for its pages, as soon as I can find the time to do so."

George E. Hilton, of Fremont, Mich., writes: "The April number of the ILLUSTRATED HOME JOURNAL is at hand. The typography, quality of paper, and general finish of the mechanical work, as well as the entertainment and instruction it contains, like everything else that comes from your hands and office, is simply A No. 1. My wife is also delighted with the HOME JOURNAL. May it receive the reward it so richly deserves."

S. W. Morrison, M. D., of Oxford, Pa., writes: "Your beautiful HOME JOURNAL is received. I take great pleasure in welcoming such a clean, healthy and instructive journal (as it is) into my home."

G. M. Doolittle, of Borodino, N. Y., writes thus : "The April copy of the ILLUSTRATED HOME JOURNAL came last night. It is simply PERFECTION in all its parts."

J. M. Hambaugh, of Spring, Ills., has this to say : "The ILLUSTRATED HOME JOURNAL is at hand, and is certainly a credit to its editor and publishers. May its success be all that you desire."

Never did the advent of a magazine for the family touch such a responsive chord, or receive such a hearty welcome.

Trial subscriptions will be taken 3 months for 40 cents each; or it will be clubbed with the BEE JOURNAL for a year at $2.00 for both. Agents, who are working for premiums, may take "trial subscriptions," and count 4 as one yearly subscriber. One sample copy sent free to subscribers of the BEE JOURNAL, upon application. That will tell you all about the "Premiums" offered for getting up clubs, and "Cash Prizes" for the largest clubs sent in before Sept. 30, 1889. "Good pay for good work" is our motto. See page 238.

BIOGRAPHICAL.

W. Z. HUTCHINSON.

This week we present to our readers the likeness of Mr. W. Z. Hutchinson, who is well and favorably known to our readers as a correspondent for years, and at present the editor of the *Bee-Keepers' Review*, which is now in its second year. Dr. C. C. Miller gave this biographical sketch of Mr. H. in *Gleanings* for Dec. 15, 1888:

W. Z. Hutchinson is one of the many, who, although born in the East, have spent in the West all of life that can be remembered. Born in Orleans Co., N. Y., Feb. 17, 1851, he was taken, four years later, with his father's family, to the dense forests of Genesee Co., Mich., where his father literally hewed out a farm. W. Z. had the full benefit of pioneer backwoods life; and although hunting, trapping, etc., had a full share of his time, his natural bent was toward machinery. This passion for machinery was, as he advanced in his "teens," put to practical use by building a turning-lathe, and beginning the manufacture of spinning-wheels and reels. These he continued to make for several years, peddling them out in the surrounding country.

At 18 years of age he began teaching school winters. While thus "boarding around," a copy of King's "Text-Book" fell in his way. It was to him a revelation. He learned that the owner had about 50 colonies of bees down cellar, which he was not long in asking to see, and for the first time he looked upon a movable-comb hive—the American.

The next season, in swarming time, he visited this friend, and the charms of bee-keeping appeared greater than those of any other business. Although not really owning a bee till the lapse of many months, he became then and there in spirit a bee-keeper, reading all he could find on the subject, and visiting bee-keepers. The introduction of woolen-factories compelled him to abandon the spinning-wheel trade; and one afternoon in June, while peddling out his last lot, he made a sale to a farmer about 16 miles from home; and although it was only about four o'clock, he begged to be allowed to stay all night, urged thereto by the sight of a long row of brightly painted hives. This bee-keeper had an only daughter, and the reader can weave his own romance, upon being told that the father, Mr. Clark Simpson, became the father-in-law of Mr. Hutchinson.

In 1877 he began bee-keeping with 4 colonies, and an excellent theoretical knowledge of the business. Mr. H. has never kept a very large number of colonies, but has made a comfortable living by the sale of comb honey. In 1887 he removed from Rogersville to Flint, Mich., where he established the *Bee-Keepers' Review*, which fills a place not previously occupied, and is edited with the ability that might be expected from one who has been so favorably known through his many articles published in the bee-periodicals and other papers.

In appearance, Mr. H. might more readily be taken for a professional

W. Z. HUTCHINSON.

man than for a farmer or bee-keeper. Tall, straight as an arrow, with side whiskers, and rather dark complexion, he presents a conspicuous figure at the gathering of bee-keepers, where he is always in office, whether the gathering be local or national.

In the last *Review*, Bro. Hutchinson copies our article from page 83 on the unhealthy increase of bee-papers, and adds:

The last 25 years have witnessed wonderful progress in the arts and industries. Bee-keeping has not lagged behind. With this progress came an increase in journalism, and in the publication of books, but the production of apicultural literature has not been multiplied to any greater extent than has that devoted to other rural industries. It is true that many bee-papers have been born only to struggle and die; but the same is true of many a venture in *all* the fields of journalism.

It is true that competition is one factor in the combination of causes that has brought failure to so many journalistic efforts, but there is more than one *kind* of competition. Brother Newman has mentioned *one* kind, the competition of numbers, but that of *quality* is passed unnoticed. We believe that, in the field of apicultural journalism, more failures have come from the superior qualities of competitors than from their numbers.

This competition among bee-papers is really a *benefit* to bee-keepers. It acts as a spur to the editors; and, in their efforts at vieing with one another, better journals are produced. Too many bee-papers have been started with no intention of competing in the race for *quality;* the primary object being simply that of furnishing an auxiliary to a supply trade—a sort of side-issue. Others have been started with no conception of the obstacles to be met and overcome. Many a journal has gone to the wall because the editorial work has been done in a listless, dreary, half-hearted way that actually courted failure.

"'Tis not wealth, nor rank, nor state,
But its 'git up and git' that makes men great."

To succeed in apicultural journalism, there must be a thorough, practical, working knowledge of bee-keeping; a personal acquaintance with apiarists and with the hobby of each; and the journal must stand *first* in the affections of its editor. In the highest and truest sense, it must be his "baby." For it he must be willing to rise early and work late; to wear plain clothes, yes, *patched* clothes, if necessary; to live on simple fare; and there must be no hesitation as to whether he can afford this or that for his journal; he must simply pull out his pocket-book and *lay it on the altar.*

Neither will it answer for him to sit in his office week after week and month after month; he must work with the bees, get out among bee-keepers, visit conventions and apiaries, and know what is going on; in short, he must leave no stone unturned in his efforts to bring his journal up to the highest standard. This is only a *part* of the price that must be paid for success in apicultural journalism, and he who cannot pay it willingly, cheerfully, yea, *proudly*, would better adopt some other style of wooing the fickle goddess.

As to the hard work, expense and "grit" necessary to succeed in the publication of a bee-periodical, the above are some graphic remarks from one who has "been there," and knows all about it. The *Review* is a home-made periodical. Bro. Hutchinson is

its editor and type-setter, and the work is all done at his home by the assistance of Mrs. H. and their children. It is well gotten up, beautifully printed, ably edited, and deserves a liberal support.

QUERIES & REPLIES.

Best Kind of Fuel to Use in Bee-Smokers.

Written for the American Bee Journal

Query 624.—What kind of fuel do you consider the best to use in a bee-smoker?—Bee-Man.

Half decayed hard maple.—J. M. SHUCK.

Elmwood slightly decayed, and *thoroughly* dry.—R. L. TAYLOR.

Any dry wood, and sometimes a little green wood.—DADANT & SON.

Partly decayed maple, beech or elm.—G. M. DOOLITTLE.

Rotten or dozy wood.—C. H. DIBBERN.

I use coarse cotton rags, corn-cobs, or anything that I can get to burn.—J. P. H. BROWN.

I use elmwood. It is the best I have used.—H. D. CUTTING.

Dry hickory or sugar-tree wood; corn-cobs do very well.—M. MAHIN.

Rotten wood, or "punk" *thoroughly* dried; cotton rags, properly tied in a roll.—MRS. L. HARRISON.

On the whole, I prefer decayed wood—a sort of dry-rot. This makes much smoke, with little heat, and burns long.—A. J. COOK.

Dry rotten elm, should your work be limited; but for an all-day's job, hard-wood chips of almost any kind.—J. M. HAMBAUGH.

Dry rotten wood. I keep some chopped up, ready for use, in a box behind the cook-stove, where it is always dry.—MAHALA B. CHADDOCK.

I prefer the fine ribbon-like shavings obtained in sawing sections. It makes a great amount of smoke, and is always at hand.—G. L. TINKER.

Rotten pine, soaked in salt-petre, with a little "excelsior" (fine shavings) to start up with.—W. M. BARNUM.

I use decayed apple-tree stumps; but any fuel that will burn, and give "lots of smoke," is good enough.—J. E. POND.

Really, I do not know. It is largely a matter of convenience. One of my apiaries is in an evergreen grove, and there we like pine cones best, because we can pick them off the ground. Elsewhere, planer shavings are mostly used. Rotten wood, sound wood, rags, corn-cobs, peat, etc., are good.—C. C. MILLER.

Pine shavings have given me just as good satisfaction as anything. They should be well packed.—E. SECOR.

The best I ever had was the rotten wood of the willow; but for several years I have been using rotten elm.—A. B. MASON.

The best fuel I have ever tried (and I have used nearly everything) is decayed elmwood. Some other woods are nearly as good, but the elm gives more smoke, with less heat, than anything I have tried.—G. W. DEMAREE.

Dry hickory, half-decayed hard maple, punk, planer shavings, corn-cobs, peat or rags are all well suited, besides other things, for fuel for bee-smokers.—THE EDITOR.

Distance Between Apiaries of Different Races.

Written for the American Bee Journal

Query 625.—About what is the nearest that two apiaries could be approached to each other, one containing Italian, and the other black bees, and keep the Italians pure?—J. L.

About ten miles.—H. D. CUTTING.

Probably one-half mile.—MRS. L. HARRISON.

We cannot *assert*, but we would say about five miles.—DADANT & SON.

Eight or ten miles, I think would be required to make it sure.—R. L. TAYLOR.

My experience says from four to five miles.—G. M. DOOLITTLE.

Italian and black bees will cross where distant four miles.—J. P. H. BROWN.

It would be perfectly safe at six miles. A shorter distance may do, but I am not certain.—C. H. DIBBERN.

I do not think that any one knows. I should prefer to have the apiaries at least five miles apart.—A. J. COOK.

I suppose that six miles would be considered a safe distance.—MAHALA B. CHADDOCK.

I cannot say positively, but I would hate to risk them any nearer than five miles.—J. M. HAMBAUGH.

I think that three miles is a safe distance. Others will put it further, but I think that they are mistaken.—G. W. DEMAREE.

That puts me in mind of a question once asked as to how far apart Lombardy poplar trees should be set. The reply was 50 miles. That about answers this query. Not that bees will fly 25 miles, but with runaway swarms flying 8 to 10 miles, as I have known them to do, any one can readily see how liable to mix they may be, when we think that they are at a safe distance.—EUGENE SECOR.

I do not know. Consult the back volumes of the AMERICAN BEE JOURNAL, and the standard works on bee-culture.—A. B. MASON.

To make the matter certain, I would not want them nearer than five miles. I have reason to believe that they will sometimes cross at that distance.—M. MAHIN.

From four to five miles; though I am inclined to think that *three* miles would practically insure no inter-crossing.—WILL M. BARNUM.

Some think half a mile, and more think two miles or more. Possibly the shorter distance may be nearer right.—C. C. MILLER.

I do not know. Cross-mating may occur if the two apiaries are a hundred miles apart. The woods are full of bees, and the wild bees cannot be controlled. Satisfactory results have been obtained were the apiaries were five or six miles apart.—J. M. SHUCK.

About seven miles. The queen, in my opinion, never flies far from the hive, but the drones make long flights on warm days, when the air is still. If the the apiarist does not mind an occasional hybrid, it will do to locate the apiaries three miles apart.—G. L. TINKER.

At least three miles; at 2½ miles I have had them mix. Four miles in a direct or "bee-line" would be preferable to myself.—J. E. POND.

We should not feel safe if they were nearer than five miles—though in some localities they may be nearer and not deteriorate.—THE EDITOR.

Convention Notices.

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at Tarbell House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.
H. M. SEELEY, *Sec.*

☞ The DesMoines County, Iowa, Bee-Keepers' Association will hold its annual convention in the Court House at Burlington, on April 23, 1889, at 10 a. m. All bee-keepers are invited. JOHN NAU, *Sec.*

☞ The 11th annual session of the Texas State Bee-Keepers' Association will be held in the apiary of W. R. Graham, of Greenville, Hunt Co., Tex., on May 1 and 2, 1889. All bee-keepers are invited. The last meeting was held here last May, and was the best ever held. So we look forward to a good time next May. A cordial welcome and hospitality will be tendered to all who come. G. A. WILSON, *Sec.*

Many Physicians are among our subscribers, and to such we may say that one of our valued correspondents, G. P. Haehenberg, M. D., intends to publish a new medical work, called a "Medical Consultation Book," which will be very valuable to physicians everywhere. He will send a prospectus upon application. His address is, P. O. Box 616, Austin, Texas.

CORRESPONDENCE.

VENTILATION.

Wintering Bees in Cellars that are Ventilated.

Written for the American Bee Journal
BY DR. C. C. MILLER.

As much because I think the matter exceedingly important, and would like to learn the truth, as because I think I know a little about it, I want to say something about ventilation of cellars.

There are a great many things unsettled in the domain of bee-keeping, and I consider the whole matter of wintering bees as one of them—at least it is unsettled with me. But there are some things pretty definitely settled, and among them I count this, that bees, to winter in the best manner, *must have plenty of ventilation.* You need not tell me that Mr. Doolittle winters his bees without ventilation—he does nothing of the kind. Even if he shuts up his bees in a cave, and leaves them untouched all winter (and it makes me green with envy when I think of it), closing his ventilators tight, still those bees get ventilation through the walls and soil the roof, possibly about all they need. I suspect, however, that if there could be a freer exchange of air without lowering the temperature, his bees might be the better for it.

Now do not let us get into a quarel on account of a misunderstanding of terms. By plenty of ventilation, I mean a sufficient change of air in the cellar so that the bees shall have all the oxygen they need, and not be obliged to breath poisonous gases. How much it takes to make plenty, I do not know. If enough air for their needs comes through the cracks of a cellar-wall, then they have plenty of ventilation. But whatever it be, whether a 12-inch tile or an invisible crack, that much or that little they must have, or they will suffer.

In the last 30 years I think there has never been a time when there were not some who insisted that, bees wintered out-doors, were healther, stronger, and built up faster in the spring than those wintered in the cellar; and why shouldn't there be something in it? Take two men alike in all other respects, only that one lives mostly in the open air, and the other in a close room, and we know that there will be a marked difference in their physical condition. One is weaker and paler than the other, and the general rule for all animals is, that for the best physical development plenty of pure air is essential.

Now the sole object, I think, of wintering bees in cellars, is to keep them in a higher temperature than they would have out-doors. Aside from temperature, the nearer the cellar can be kept like out-doors, the better. Even some of those who insist that bees use so little air that no attention need be paid to the ventilation of a cellar, insist just as strongly that the ventilation of the hive is very important, even to having the whole space under the hive entirely open. What is the use of ventilating the hive? Why, to get better air in it, to be sure.

But suppose the cellar be hermetically sealed, every time the bad air of the hive is changed the air of the cellar becomes vitiated so that it is only a question of time when the ventilation of the hive becomes practically impossible, for the simple reason that there is no pure air in the cellar. A single colony in a cellar might get along comfortably well, even if not a thimbleful of fresh air could get into the cellar, if the cellar were large enough, and a hundred colonies might do equally well, *if the cellar were large enough.*

But a cellar which would winter finely 10 colonies, depending upon the fresh air that would force its way through the walls, might prove a failure with 100 colonies. It must be remembered that if ten times as many colonies are put into a cellar, each colony will *not* have one-tenth as much air.

For the sake of illustration, suppose that each hive with its contents displaces one cubic foot of air; and suppose the cellar contains 510 cubic feet. If 10 colonies are placed in it there will be left for them 500 cubic feet of air, or 50 cubic feet for each colony. Now if 100 colonies are put in, displacing 100 cubic feet of air, there will be left for them 410 feet of air, or 4.1 feet for each colony—about one-twelfth as much as when one-tenth as many hives were there.

If I am not mistaken, the matter of ventilation is not troublesome in the South, where the temperature also takes care of itself; but in the colder portions of this country, there is always more or less of a struggle going on with both, and a perfect ventilation cannot be obtained without a sacrifice of heat, nor the best temperature without some sacrifice of ventilation. Just what is the best compromise in each case is not easy to determine, and I suspect that it is quite possible that some of our notions about wintering bees may undergo considerable change.

For one, I am far from satisfied with my own practice. If I could winter my bees in a cave, like Mr. Doolittle does, with no care whatever, I should be willing to have my colonies come out a little weaker if necessary in the spring; or if I could let them stay out-doors without care in winter, I should be willing to have my winter losses considerably heavier, provided those colonies which did live through should have healthier and more vigorous bees.

Marengo, Ills.

AND WHAT?

Deacon Smith on Bee-Keeping with other Pursuits.

Written for the American Bee Journal
BY EUGENE SECOR.

Deacon Smith has the happy faculty of hitting the nail squarely on the head. He does not know a rule in grammar from the subtlest philosophy ever dreamed of, but his contact with the world has given him a common-sense view of the common affairs of life falling under his notice, and although sometimes told in a blunt and homely way, his conclusions are often forceful as well as amusing.

He likes to administer his criticisms in the way the hunter aimed his rifle—to *kill*, if it was a bear, and to *miss* if it happened to be a man. At least that's what I thought a few evenings since, when the Deacon "hooked onto Mirandy," and brought her over to our house "to see the good woman," while *we*, as usual, entertained each other—*he* doing the talking, and I listening eloquently.

Its a treat to hear him talk; and to get him started, all I have to do is to wind him up like a Waterbury watch (but it doesn't take so long to set him going as it does to wind the aforesaid Waterbury).

Knowing the Deacon to be a sensible man, devoid of all impracticable ideas, and knowing also that the question at the head of this article has been discussed by many of the best writers and thinkers in apiculture, I was anxious to learn the views of a practical bee-keeper who does some thinking on the subject without the writing; so in answer to the question, he began:

"What do I think would go along well with bee-keepin'? Well, I'll tell you. The *best* occupation *I* know of is bankin'. You may talk about your chicken business, and your small-fruit business, and your farmers' and dairy business, and all the etceteras, but they don't compare with bankin'.

"Wasn't you tellin' me once of the two Irishmen leanin' on their spades, and Mike says to Pat, now Pat, hoat would you rayther do for a livin' if ye

had your choice ; and Pat says, leanin' heavy on his spade, 'Well, Moike, for a *nice, clane, aisy* job, I'd loike to be a Bishop ?' Now that's my ticket exactly, only I'd like to be a Banker.

"I tell you there's nothin' so soothin' to the feelin's of the honest and hard-workin' bee-keeper, when the clover blossoms don't give down, and he goes about weepin' and mournin'—like Rachel of old—for the basswood bloom because it is not, as to know that his bank account is in a healthy condition, and will stand the wear and tear of a year's hard times, without patchin'.

"If a fellow carries on the chicken business, he has got to get up in the mornin' when the old rooster calls him, or his Plymouth Rocks won't catch the early worm we hear so much about. If he is farmin', the calves will want their breakfast before 8 o'clock, and the dew on the corn leaves has got to be knocked off or he won't get a boomin' crop. If he raises berries for a livin', he'll have to be astir before sun-up, or he'll get left ; but with the bankin' business, he don't have to open shop before eight in the mornin', and he can shut up at five, count his cash, and go home and see if the woman and boys have tended the bees all right.

"If a drouth kills the clover crop, all he has to do to make both ends meet, is to loan a little more money at a little bigger rate of interest. If an early frost nips his buckwheat before the bees get their hives full, he can call it a *stringency in the money market*, and tax his customers a little more for an *accommodation*.

"You say 'everybody can't be bankers ?' Of course not. If they was, there would be no one to furnish business for them ; neither can everybody be bee-keepers, because if they was, there would be nobody to buy our honey ; and I reckon about as many folks can be bankers as can be a success at bee-keepin'.

"The next best thing to bankin' is keepin' supplies to sell to other bee-keepers. In fact I don't know but this is the best thing after all, for they call these men *specialists*. That's a big name now-a-days. If a man is only a 'specialist,' he must be awful smart ; and if he produces honey, and sells queens, and makes bee-hives and other fixin's, and prints a circular every year to coax every other fellow into the business, he'll get his name in the paper (and may be he prints one himself), and most always gets his picture in, too. Of course that don't advertise his business any, but it makes him feel awful good to be called the "King-bee." Its better to be a big toad in a little puddle, than to be a tadpole in a mill-pond ; and the big toads are the fellows that make bee-keepin' a specialty, in order to get their names in print, while at the sametime they run a carpenter shop, or buy and sell a hundred things a bee-keeper don't need, only to be in fashion.

"I hain't made nothin' keepin' bees for two years, and if I could make somethin' sellin' contraptions to my neighbors, it would go a long way toward helpin' the clover crop out. These newfangled things for the apiary take first-rate before people get their eye-teeth cut. They are bound to have 'em you know, and if I sell 'em to 'em, I'll be a *specialist*, and get my name in the papers as the 'great king-bee of Puckertown.'

"It would tickle Mirandy awfully to have folks writin' to me askin' me questions, and callin' on me every day but Sunday, to carry home some of them beautiful hives and fixin's, that'll git honey whether there's any in the flowers or not.

And then I'd invent some great bee-savin' fodder that would link my name to posterity as the only original Smith genius the world ever produced, and all the tribes of Smith will rise up and call me blessed.

"You may, if you like, follow bee-keepin', and break your back over the strawberry patch, but I'll be a specialist and sell goods to the rest of the world."

Forest City, Iowa.

APRIL TEARS.

Oh ! April, bonny April, why shed such show'rs of tears
When the green, green grass is springing over all the waking earth,
And many a fragrant flower the wood and meadow cheers,
And many a bird from budding trees sings songs of love and mirth,
Oh ! April, bonny April, why shed such show'rs of tears ?

"My tears are not of sorrow. They are happy, happy tears,
The golden sunshine makes of each a sparkling rainbowed gem ;
I am so glad as each sweet flower and joyous bird appears,
To think that back to our dear land my voice has summoned them.
My tears are not of sorrow. Thay are happy, happy tears !"

—*Vick's Magazine for April.*

LINDEN HONEY.

Moving Bees to Secure Honey from Basswood.

Written for the American Rural Home
BY G. M. DOOLITTLE.

A correspondent wishes me to answer the following questions :

"1. I am thinking of moving my bees, the coming summer, a few miles to where there is an abundance of basswood, hoping to secure a greater yield of honey than I at present receive, as I have no basswood near me. What do you think of the idea ?

"2. Are not the blossom-buds formed on the basswood-trees a few weeks previous to the time of their opening, so that I can know by this whether there is a prospect of honey from that source, in time to make preparations for moving ?

"3. Are there any seasons when basswood blooms in profusion, when there is no honey-yield from it ?"

In answering the first question, I would say that the plan is a good one, and I can see nothing against it, except the expense. I believe basswood to be the greatest honey-producer in the world. In fact no report has ever been given (if I am correct) of an average yield of 20 pounds per day from a single colony for 30 days in succession, except from basswood. Mr. Gallup had a colony do this. I had one which stored that for about 10 days, the best yield being 66 pounds in 3 days.

Now, if the questioner can move his bees to the basswood, and return them at an expense of $1 per colony, it will be seen that 10 pounds of honey from each colony will pay the cost, counting honey at a very low figure, if he should get that much surplus ; and if the cost should even come up to $2 each, 20 pounds would make it good.

By going back over my account with my bees for the past 16 years, I find that from basswood alone, my yield of honey has not been far from 60 pounds, on an average, from each colony, each year ; the lightest yield being about 35 pounds, and the heaviest 120 pounds. This is the average yield of the yard, not the yield of an individual colony.

Now, if you call 60 pounds what we can expect one year with another from basswood, and that it will cost 20 pounds of that honey for moving the bees to the basswood, we shall have 40 pounds left for profit ; or, if honey sells at 15 cents per pound, as it does at present, that when sold will give us $6 per colony as clear money on each colony, over what we should have had if we had not moved them. So if 100 colonies are moved, we have $600 over all the expense for our undertaking.

In answering the second question, I will say that the fruit-buds and leaflets of all trees with which I am familiar, are formed in June and July of the preceding year, so that the results of the next season's honey-yield, as far as buds and flowers are concerned, are already formed in embryo, on the apparently bare and lifeless branches of the basswood trees. They wait only for the warmth of spring, to bring this dormant life into growth.

As soon as these buds unfold (the latter part of May) then we can see and know whether to make prepara-

tions for moving the bees or not. By examining closely we can find the bunch of buds at the base of each leaf, curled up, looking like the half of a very small pea, or perhaps a little fuzzy caterpillar would explain it better. With each week this bunch of buds grows till at the end of about seven weeks from the time the trees put on their green in the spring, they open their flowers, filled with nectar to invite the bees to a sumptuous feast.

Of course, a cool season will retard the time of their blossoming a little, and a hot season advance it; but the above is the rule. Thus the practical eye can tell nearly two months in advance, as to the promise of a yield of basswood honey.

In replying to the third question, I will say that I never knew a season when the basswoood did not furnish *some* honey. The shortest yield which I ever knew gave a three days' yield, in which honey was so plentiful that the bees could not prepare room fast enough to store it, with a gradual tapering off of two days more, making five days in all. The longest gave a yield of 25 days, with three of them so cold that the bees could only work a little in the middle of the day.

The state of the atmosphere has much to do with the secretion of honey in the basswood flowers. The most unfavorable weather is a cold, rainy, cloudy spell, with the wind in the northwest. If basswood bloomed at a time of year when we were liable to have much of such weather, there might be such a thing as an entire failure of honey from it. But as a rule, we have very little such weather at this time of year.

The condition most favorable to a large yield is, when the weather is very warm, and the air filled with electricity. At times when showers pass all around with sharp lightning and heavy thunder, the honey will almost drop from the blossoms, providing no rain chances to come within a mile or two of it. At such times as this, I have seen honey in the blossoms after they had fallen off on the ground, so that it sparkled in the morning sunshine. Then, this nectar is honey and not sweetened water, which makes basswood doubly valuable over most of the other honey-secreting plants and trees.

One bee-load of nectar from the basswood, in a dry, warm time, is equal to three from the white clover, or five from some other of our flowers. In a rainy time there is not so marked a difference. At times when basswood was yielding its best, I have seen more than a bee-load of honey in a single flower. I have taken one stem of blossoms, when the yield was great, and jarred it over my hand, when I would have several drops of nice honey in it. At such times as this, 1,000 colonies of bees could find all the honey which they could carry, if all were left in one place; at all other times, I think from 100 to 200 colonies would be ample for any locality.

Borodino, N. Y.

FAIR EXHIBITS.

Separate Buildings for Apiarian Displays.

Written for the American Bee Journal

BY DR. A. B. MASON.

On page 132 I am asked, among others, to tell what I think about separate buildings for bee and honey shows at fairs, and the request is prefaced by these words: "Much may be said in favor of a separate building."

Yes "much may be said in favor of" such a building, but I think that much more may be said in favor of *usually* making apiarian exhibits in buildings in which other exhibits are made.

It is "just splendid" for bee-keepers to have a building all to themselves. The Michigan bee-keepers have had such a building for six years at their State fair, and it is nice for *them;* I think that it was in 1883 that they had their first separate building at Detroit, and very nice displays were made by M. H. Hunt, W. Z. Hutchinson and H. D. Cutting. There were also some smaller exhibits, but the building being off to one side, it was not visited by the crowd.

The next two years the fair was at Kalamazoo. The building was larger and better located, and was visited by all who desired to see the exhibit. For the last three years the fair has been held at Jackson. It is not well located, visitors having to go at least 60 feet, I should think, away from the regular thoroughfare, to see the exhibit; and when the ground is muddy, as fair-grounds generally are during fair time, people are not going far out of their way to see what they are not especially interested in.

At the Ohio Centennial last fall, our honey-building was located fully 75 feet from the main thoroughfare, and there were many days when mud was supreme, that our building was pretty well neglected, and we felt "kinder lonesome."

At our Tri-State Fair, here at Toledo, the managers have several times offered to put up a separate building for us, but I have so far preferred our present location, which is in one end of what is known as the Main Hall—the largest building on the grounds—in which is the Art Gallery, dry goods, notions, clothing, everything made by the ladies, sewing machines, musical instruments, flowers, fruits, vegetables, grains, seeds, the products of the kitchen and dairy, etc., and no one can see these without seeing the bees and honey.

Exhibits at the Tri-State Fair.

Our first exhibit was made in 1882, and "ye editor" being present as judge, said this in the AMERICAN BEE JOURNAL for Sept. 20 of that year, in regard to that exhibit:

"Bee and Honey Show at Toledo, O.—Such a grand success was this new feature of the Tri-State Fair, that the managers have already promised the bee-keepers all the space they may desire at the fair for next year.

"The small corner set apart for the bee and honey show was so crowded all the time, that it was with great difficulty that any one could get through the crowd, and utterly impossible for one-quarter of those who desired to examine the exhibits, to even get within a stone's throw of them."

Every year since, the honey exhibit has been an attractive feature, and we much prefer to remain in the main building, to having a building by ourselves. Last year one of the directors spoke of leaving out the honey-department, so as to save so much money ($81), but he was "alone in his glory." They have found it difficult to fill the space we occupy with anything else.

We make a specialty of exhibiting honey, and display it to the best possible advantage. The number of exhibitors is generally so small in most localities, that a building of respectable proportions could not be so filled as to do credit to our specialty.

I believe that the premium list is of vastly more importance than the building. No one is going to make an exhibit in any department unless it *pays*. That is what we are all after, the *pay*. Many exhibits are made without any premiums being offered, the sales and the advertising being sufficient remuneration.

In this locality the sales and advertising in the honey department are not enough to pay, although the sales increase every year. Last year there was an unusual demand for honey.

If a separate building is used, it must be filled, or the fair managers will be disgusted, and wish they had saved the money invested in the building for some other purpose. If the exhibits are made in connection with other displays, and the show of honey, for any reason, is small, other exhibits will take its place.

Last season being such a poor honey season, there was but one entry made here besides ours, and we had to "spread ourselves" to occupy the alloted space; and living only about a

mile from the fair, it took us but a few hours to "get there," and the space was occupied so that visitors said it looked better than ever—and it paid us better than ever.

I believe that in nine cases out of ten, a separate building is not needed, and would be a positive damage. Even where there is a large display, it is by a few exhibitors, and "lots" of other bee-keepers will say, "I could beat that," but they never try.

The premiums should be so arranged as to bring out those things that are most attractive to the general public, and give to each exhibitor, so far as possible, enough premiums to pay all expenses; and I am sure that the social part, and the pleasure had in the endeavor to add to the general display and general good, will pay well for the time spent. But whether the exhibit is made in a separate building or otherwise, an effort should be made to aid the managers in making the fair a success, and not have them feel that our department is a burden.

At the Michigan State Fair, the bee-men are a positive help to the managers, and cause them no anxiety. Here at our Tri-State Fair, they pay no attention to our way of doing things, for as they say, "Everything will be all right in your department, anyhow;" and at the Ohio Centennial, at its close the Society told me that our department was the only one that run smoothly, and from which no complaints were made; and when any of us wanted anything, the officers were glad of an opportunity to do us a favor.

A good way to help make it pay is, to take a goodly supply of "provender" in the lunch-box; bedding enough to make a comfortable bed on straw, and live on the grounds. A small oil-stove, that can be had for a dollar, will readily warm up cold "vittles," and make the tea or coffee; and so far as my experience goes, there is plenty of milk to be had, fresh from the fountain, for "little or nothing," or honey, and there is lots of comfort in being at home.

That is the way I lived at the Centennial for eight weeks, and nearly all the time I had from one to three besides myself at my table, and others were living in the same way in our building. A small oil-stove, as above referred to, boiled our "taters," and cooked our meat, etc.

Such a way of living is a regular "picnic," and beats a hotel or boarding house "all to pieces." No cooks, or waiters, or boarders to growl. Good square meals, and good square appetites; good honey always on the table, good company, and a good time generally.

Auburndale, O.

BEGINNING.

An Amateur's Experience in Keeping Bees.

Written for the American Bee Journal

BY A STUDENT.

In the spring of 1886 I got one colony of pure Italian bees, in an 8-frame Langstroth hive, for which I paid $8. I moved them eight miles in a lumber-wagon, and put them in the shade of a large crab-apple tree. Although the frames were in no way fastened, there were no dead bees or broken combs.

The surplus arrangements for comb honey were put on at once, and the bees went to work in them immediately, and in a short time they stored about 12 pounds (which was all the surplus honey I got that year), when they swarmed. As the queen's wings were clipped, she was easily caught upon leaving the hive, when the old hive was removed to a new location.

The bees clustering in a tree as soon as they missed their queen, gave plenty of time to put an empty hive on the old stand, and the bees shortly after returning in search of their missing mother, entered the new hive, the old queen being allowed to run in with them.

They immediately went to work, and when I looked at them about eight days afterwards, they had the hive full of comb, and the four middle combs were full of worker brood, while the other four were nearly all drone-comb, and had some eggs and larvæ in them, and some honey. Had I done as I should, and taken the surplus arrangements from the parent hive, and placed them on the new swarm when they were first hived, eight days before, I have found from later experience that there would have been but very little drone-comb built by the new colony, and the swarming impulse would, as a general thing, have been done away with for the season, and the new colony would have stored nearly 50 pounds of surplus honey.

But ignorance is expensive, as I learned to my sorrow before the next spring. The old colony cast 4 after-swarms, the first two of which were of good size, but the last two were very small, and as they were all hived on eight empty frames, it may justly be imagined that they did not "wax rich in stores;" and when fall came, with the frosty nights, the busy little workers were obliged to suspend work, and they were, as I have since learned, in a poor condition to withstand the long and cold winter.

The first swarm cast by the old colony, swarmed about the middle of July. Both of these swarms were, however, in good condition for winter, having plenty of honey and bees.

About the first of November these 7 colonies, all from natural swarming, were placed in the cellar under the house, and directly under the living room, the noise of which seemed in no way to disturb them, as some seem to think. I did not examine the bees until the next spring, after they were placed on the summer stands; then I found the last 2 after-swarms dead, and the 2 others were so very weak that I united them, thus leaving me 4 colonies to begin the season of 1887 with.

The cause of the death and weakness of the 3 colonies was starvation, caused by too much room, consequently scattered stores. Bees, to winter well, should have *just* the amount of combs, well filled with sealed honey, that they can compactly cover, and these frames of comb, if less than a hiveful, should be placed in the middle of the hive, with a dry basswood division-board on each side (made the same size as the brood-frames), and the spaces at the sides filled in with dry fall leaves—soft maple leaves are the best.

The honey-board inverted with a piece of gunny cloth tacked on the top side should be placed over the frames, leaving a ¾-inch space between the top of the brood-frames and the slats of the honey-board, thereby giving the bees plenty of room to pass over the tops of the brood-frames, from one to the other, which is essential to successful wintering.

I have always, since the first winter, placed an empty **T**-super on the top of the honey-board (arranged as just described), and filled that with leaves, and then placed the cover on that, giving the hive the same appearance it has in the honey season with one 24-pound super of sections on; only in this case the honey-board is inverted, and has a piece of gunny-cloth tacked on the upper side of it, to prevent the leaves from falling through on the brood-frames, and the super is filled with leaves, instead of one-pound sections.

During the summer of 1887 I increased the 4 colonies to 9, and took 300 pounds of comb honey in one-pound sections. I use sections 2 inches wide, preferring them to those more narrow, for the reason that they always hold one pound, and for that reason they can be much more readily sold by the single comb than the others.

In the fall, before putting the bees into the cellar, I united so that I had but 6 colonies, and one of these, I am now satisfied, was queenless, the queen having been killed while transferring them from a hollow limb, into which they knew no more than to go and

make lots of trouble getting them down and into a respectable hive.

Getting a Swarm from a Tree.

It was a swarm that left in spite of cow-bells, tin-pans, dust, sand and water; and after giving me a chase of nearly three miles, in the middle of an August day, with the thermometer at 98° in the shade, it finally got away by crossing a small lake; however, they were seen by one of my neighbor's to enter a hollow oak-limb, about 60 feet from the ground.

So one evening, about a week afterwards, father, myself, and a German by the name of Joe, who was working for us, went down to the lake, in the woods of which the bees had made their home. Joe enclosed his head in a bee-veil, and with a bee-smoker well lighted, and a saw and rope fastened around his waist, started up the tree with "fire" in his eye. He had "fire" in both eyes when he came down shortly afterward. He also had a piece of wire screen to fasten over the hole in the limb.

Joe had, of his own free will, agreed to lower the swarm safely to the ground for $1.00, saying, "Dat vas nodings." I think, however, that he changed his mind before he got down again from the tree. The smoker had worked loose, and fallen to the ground, and when he got to the bees, contrary to what he expected, the bees were crawling all around the entrance on the ontside. However, he succeeded in getting the screen over the entrance, but was obliged to leave a few dozen of the guards outside, and they, true to their reputation, kept Joe busy.

He succeeded in tying one end of the rope around the limb, preparatory to lowering it when he had it sawed off. Everything would have been lovely, had it not been that in sawing off the limb, he sawed into the hollow, and when the limb fell, it seemed to wake up an immense lot of bees, which came out of the end of that hollow log with bayonets fixed, and intent to kill.

Joe had neglected to unwind the rope from around his waist, and with the bees swinging just under his feet, he slid for nearly 20 feet down the tree, without once stopping. When he first started down the tree, his veil loosened, and the bees struck for unexplored regions, which seemed to increase the speed with which Joe descended the tree. He, however, got to the bottom in a very short time after starting, and so did the bees—the one exceedingly hot and increasing in size, the other mad and vicious.

But by the use of the smoker, which was relighted, we succeeded in tying a coat over the end of the log, and in that way carried it home, and there it was left in the wagon until morning, when we split the log open, and drove the bees into a hive. We got nearly two panfuls of nice clover honey from the log.

The bees, however, were not satisfied, and came out several times that day, and clustered every time on the same rose bush. Finally, to make them behave, I had to give them a frame of eggs and brood from another colony. From these I thought that they would rear a queen, if theirs was lost, but this they did not do, and I know not why.

Joe grew fat over his experience, but seemed to have enough, judging from the way he spoke about "those confounded little bugs."

Last spring, when I examined the bees after putting them on the summer stands, I found 5 of the colonies with bright combs, nearly full of brood and eggs, and a good lot of bees in each. The sixth colony had moldy combs full of dead bees, and the hive was badly spotted. They evidently died of diarrhea, caused, no doubt, by having late and thin honey to winter on.

The 5 colonies increased, by natural swarming, to 12, and gave 500 pounds of surplus honey, in one-pound sections.

I use the tiering-up system, and so far it has been satisfactory, especially when honey is coming in very rapidly; but where honey is coming in very slowly, I think that I should prefer to take the sections out as fast as filled and capped, and after removing the unfinished ones to the sides, place the empty ones in the middle. I say empty, but they are not, for I use full sheets of foundation in them. By placing the new sections in the middle of the super, it stimulates the bees to commence work in them at once.

Fastening Foundation in the Sections.

I have read considerable in the AMERICAN BEE JOURNAL lately, and in the past few months, about fastening foundation in sections. The trouble seems to be the fact that the bees draw out much faster the side of the section that the wax is spread out on, in fastening in the foundation, thereby bulging one comb into another. As yet I have had no trouble of that kind, and I think that none will, if they place the sections in the supers as I have done.

I use a "Parker foundation-fastener." My supers hold 24 one-pound sections, 4¼x4¼ inches, six in each row across the hive. Now the first section that is put in each of the four rows, is turned so that the side that has the wax drawn out on the top of it from the foundation, is next to the side-board of the super; the next one to it is turned the opposite way from the first, and the third the opposite from the second, and so on, until the super is full. In that way the side of each section that is liable to be bulged, is brought opposite to the corresponding side of the other, and the sides that the wax is not drawn out on, are also brought together, thereby causing the foundation of each section opposite, to be drawn out with equal rapidity, and preventing one comb from bulging into the other.

Hutchinson, Minn.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Apr. 23.—DesMoines County, at Burlington, Iowa.
John Nau, Sec., Middletown, Iowa.

May 1, 2.—Texas State, at Greenville, Tex.
G. A. Wilson, Sec., McKinney, Tex.

May 4.—Susquehanna County, at Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 21.—Northern Illinois, at Pecatonica, Ill.
D. A. Fuller, Sec., Cherry Valley, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Not a Colony Lost.—O.M.Morris, Hebron, Ind., on March 26, 1889, says:

I have been in the bee-keeping business for several years, and I always wintered them on the summer stands. Some winters I have lost quite a number of colonies, but this winter beats them all, for I had 167 colonies last fall, and all have wintered nicely, without the loss of a single colony.

Sub-Earth Ventilation, etc.—P. H. Elwood, Starkville, N. Y., on March 15, 1889, writes:

I notice what Mr. Betsinger says on page 156. He prefaces his remarks by the words, "If I am not mistaken"—but as is often the case, he is mistaken. I said at the New York State Convention that, the exit ventilators of my cellars (those carrying out warm air) were closed in the coldest weather. I said further, in explanation, that this did not cut off all ventilation, as the sub-earth ventilator was always open, and bringing in a large volume of fresh air. This could not happen if the natural ventilation was not sufficient to carry out this large amount together with that coming in through crevices and porous material. I stated in convention that from 100 to 200 colonies (the number varying inversely in proportion to their activity)

in winter quarters require as much air as one person.

In proof that I have not changed my views on ventilation for several years, I will refer Mr. Betsinger to an article on page 233 of the AMERICAN BEE JOURNAL for 1878, and to one in the *Bee-Keepers' Magazine* for 1888, page 114. I have not headed any of my articles "Scientific Ventilation." There is a great amount of nonsense palmed off as science, and I have had no desire to add to the quantity. So long as I am in accord with such authorities as Cheshire and Corneil, there will be no need of bolstering up any of my articles with a scientific title.

Lost One-Third in Wintering.—Wm. Robson, Rolla, Mo., on March 28, 1889, writes:

For the past two seasons the busy little honey-bees have not paid; indeed they have not stored honey enough to winter upon. I have lost one-third, fall count, and several have lost all they had. The first pollen gathered was on March 13; since that time there has been considerable activity among the bees, but, for a change, we are this morning treated to a blanket of snow, about 2 inches deep. From present appearances, we will have considerable white clover for the bees to revel in, the coming summer.

Bees Wintered Perfectly.—Frank Waring, Philipsburg, Pa., on March 28, 1889, says:

The winter being very mild, the bees wintered perfectly on the summer stands. On March 23 I saw them carry in natural pollen (they had been carrying rye flour for some days previous to this), and they have been at it every day since. That is not bad for the Alleghany Mountains—over 2,000 feet above the sea level. The weather seems about a month ahead of the Almanac.

Good Prospects for the White Clover.—R. P. Blades, Carmi, Ills., on March 30, 1889, writes:

The prospect for white clover is better this year than it has been for three or four years. It seems that every vacant spot is covered with white clover; but as for the honey that it produces, I cannot say, as it has been nearly a failure since I have been interested in bees. The honey that is gathered here is from black-gum and poplar. Maple is our spring honey source, but I do not think that it gives much nectar, but it is good for pollen, and is very welcome, as it is the first to bloom. The flow of fall honey is from smart-weed and Spanish-needle; also other little blooms that have no names, or at least I have never heard any names for them. I have sown 4 acres of Alsike clover this spring; if the Italian bees like that, I will sow more next year. I have 11 colonies of bees in Simplicity hives, some of which I transferred three years ago. The combs in the brood-frames are rough and getting old, and have too much drone-comb also. Would it do to take out the side frames, remove the old comb, and refill the frames with comb foundation?

[Yes; that will not only get rid of the excess of drone-comb, but give the bees something to do, and incite them to labor.—ED.]

My Experience with Bees.—Robert Schultz, Alma, Wis., on March 30, 1889, says:

I commenced in the spring of 1888 with one colony of Italian bees, for which I paid $6.00. I had one swarm from them. I then bought 3 colonies of black bees, and put 2 of them into box-hives, and the other in a Langstroth hive; the 2 in box-hives are dead. I put my bees into the cellar, and put them out on March 12. They are strong yet. I found 4 clonies last fall in hollow trees, 2 being Italians, and 2 blacks. I took the honey from the blacks, and the Italians I put into the cellar, but they have all died.

Favorable Winter for Bees.—S. B. Brillhart, Kendallville, Ind., on April 2, 1889, writes:

I have kept from 25 to 50 colonies of bees for the past 18 years, but the past season was the poorest of all, to get surplus comb honey in the sections; yet my bees seemed to do well, and gathered enough to go into winter quarters in good condition, but nothing to spare for their keeping. I commenced the season with 38 colonies; in the fall I packed 42 colonies in leaves on the summer stands, 40 of which are now in good condition. I also have 23 colonies 6 miles in the country, which were left standing out without any protection, 18 of which are reported in good condition. The past winter was very favorable for wintering bees, so all that was necessary here was, plenty of good stores; but unfortunately, many bees that had no care will lack this essential, and will have to be mentioned with the dead before May 1, 1889.

Bees Flying Every Day.—Mr. Nathan Mercer, Neosho, Wis., on Mar. 25, 1889, writes:

Last year my bees dwindled down to 30 colonies from 100 in the fall of 1887, so I worked for increase instead of honey last year, and had 48 colonies last fall, all in chaff hives. They stored hardly enough for winter, so I fed them in the fall about 300 pounds of sugar and honey mixed together; to-day they are all alive and in splendid condition, whith plenty of honey, lots of brood hatched in every hive (except 3 queenless ones), and with bees enough to cover from 7 to 10 combs in each hive. They have flown out every day for the last two weeks, and yesterday they gathered pollen. They are the strongest colonies that I ever saw for this time of the year.

Bees are Booming.—Arthur H. Weston, Gallatin, Mo., on March 3, 1889, writes:

My bees are booming. All the 29 colonies on the summer stands, have wintered well. I have finally adopted the standard Langstroth hive. I have taken the AMERICAN BEE JOURNAL for several years, and I find it worth a wagon-load of the common kind.

Cellar-Wintered Bees.—S. J. Youngman, Lakeview, Mich., on April 1, 1889, writes:

Bees have wintered well in this part of Michigan, both in cellars and in chaff packing; but cellar-wintered bees will undoubtedly suffer now, as at this date there is 4 inches of snow on the ground, and bees have been out at least ten days, as the weather when they were put out, was unusually fine. My bees gathered pollen at that date. I fear great mortality in bees under such adverse conditions in thin, shallow hives, without even wind-breaks. I prefer my bees snugly packed in clover chaff until at least the middle of May.

None Lost in Wintering.—Mr. Lionel Brokaw, Summer Hill, Ills., on April 1, 1889, writes:

It is with great pleasure that I can report my bees this spring without the loss of a single colony, and it is the first winter that I ever wintered all of them. They are on the summer stands, in single-walled Simplicity hives, as described on page 27. I kept them covered with snow during the winter, when there was snow on the ground, but this being the warmest winter that

I ever saw, I do not care to risk them out another winter. I now think that I will try the cellar next winter. I also purchased, at neighboring sales, 5 more colonies, mostly Italians; thus with my former 20, it makes me a neat little apiary of 25 colonies this spring, and they have an abundance of honey for breeding purposes, too. The bees carried in pollen during the whole month of March, when it was fair, from the apple and elms. I am selling comb honey for 12½ cents this spring. There is a good deal of broken and soiled comb honey in the market here, which makes it drag. I like the AMERICAN BEE JOURNAL very much.

Wintered on Sugar Stores.—Lemuel Stout, Philadelphia, Pa., on March 31, 1889, says:

All of my bees (4 colonies) came through the winter nicely on 60 pounds of sugar and 30 pints of water, fed in November, 1888, without any tartaric-acid nonsense. I started with Hill's device, with cotton over it, six years ago, and with that kind of feed, and have never lost a colony. I opened the hives on March 24, and they were carrying in pollen. When I put them away I do not believe that the colonies had 4 pounds of honey in all.

Short-Winged Bees, etc.—E. B. Cohoon, Lakeview, Ont., on April 1, 1889, writes:

I imported an Italian queen from the United States last fall, and on examining her progeny this spring, I find fine, full-developed bees, well bred, but with wings only half the proper length. Can any one explain the cause of this? The bees are in fine condition.

I have 10 colonies of bees wintering in the cellar under the house, and they are coming out finely so far. The weather was fine here for sometime, but has changed for cold now. Yesterday it snowed nearly all day. I think very much of the AMERICAN BEE JOURNAL, which visits me regularly every week, and I could not do without it while I am inclined to work with bees.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

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BUSINESS MANAGER.

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We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck; 20 cents per lb.—by express or freight.

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Honey and Beeswax Market.

HONEY.—White 1-lbs., 16c.; fall, 14c.; 2-pounds, white, 14c. Extracted, scarce at 8@8½c.
BEESWAX.—20@22c.
Mar. 28. CLEMONS, CLOON & CO., cor 4th & Walnut.

CHICAGO.

HONEY.—Our trade is light; no large lots on hand and what there is consists chiefly of dark comb, and not salable in quantities. Choice white comb, 1-lb. sections, 16@17c.; dark grades from 10@12c. Very little demand for extracted, but prices remain at 7@9c., according to quality and package.
BEESWAX.—22c.
Mar. 25. R. A. BURNETT, 161 South Water St.

DENVER.

HONEY.—White, in 1-lb. sections, 16@18c. Extracted, 7@10c.
BEESWAX.—18@20c.
Mar. 26. J. M. CLARK & CO., 1409 Fifteenth St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 16@17c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c. If damaged and leaky, 10@12½c. Extracted, white, in barrels, 8@8½c.; ½-barrels, 8½@9c.; amber in same, 7@7½c.; in pails and tin, white, 9@9½c.; in barrels and ½-barrels, dark, 6@6½c. The demand is fair.
BEESWAX.—20@22c.
Mar. 27. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—Market is bare of comb, except some small lots of buckwheat which is selling at from 10@12c. No buckwheat extracted. Cuba and San Domingo extracted, 67@70c. per gallon.
BEESWAX.—24c.
Mar. 25. HILDRETH BROS. & SEGELKEN, 28 & 30 W. Broadway, near Duane St.

ST. LOUIS.

HONEY.—Demand limited to local wants, which are small. We could sell some to country points in barrels and ½-barrels at 6½@7c. for extracted; in cans, 7½c.
BEESWAX.—21c. for prime.
Mar. 25. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½@7 cts.; amber, 5½@6c. Comb, white 1-lbs., 13@14c.; 2-lbs., 10@12c. Demand for extracted is good; for comb, limited. Prospects are not as good for honey as in 1888.
BEESWAX.—Scarce, at 18@22c.
Mar. 15. SCHACHT, LEMCKE & STEINER, 16 & 18 Drumm St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 18@20c.; best 2-lbs., 17@18c. Extracted, 8@9c.
Sales are good, but market is short of fancy white comb honey.
BEESWAX.—24c.
Mar. 22. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 15@16c. Sales slow. Extracted, 8@9c. Demand small, prices lower.
BEESWAX.—22@23c.
Mar. 22. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 15@16c.; 2-lbs., 12@31c. Good dark 1-lbs., 12@13c.; 2-lbs., 10@11c.
Mar. 21. S. T. FISH & CO., 189 S. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@15c. Demand is slow, and prices low.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Mar. 21. C. F. MUTH & SON, Freeman & Central Av.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

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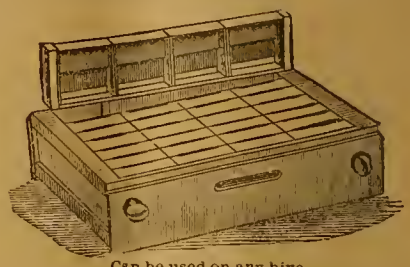

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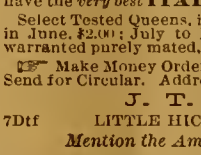

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. April 20, 1889. No. 16.

EDITORIAL BUZZINGS.

Sweet April! many a thought
Is wedded unto thee, as hearts are wed;
Nor shall they fail, till, to its autumn brought,
Life's golden fruit is shed.
—LONGFELLOW.

A Golden Thought for us all is thus shaped by Mr. Johnson: "History can be formed from permanent monuments and records; but lives can only be written from personal knowledge, which is growing every day less, and in a short time is lost forever."

The Bee; its Life and Labors—was the topic upon which Mr. G. B. Jones gave a lecture on March 22, before the students of McMaster College, Toronto, Ont. The subject was amply illustrated by charts, and the *Globe* says that "the lecturer showed his enthusiasm in, and careful study of, the subject discussed."

Scientific Queen-Rearing, as practically applied; being a method by which the best of queen-bees are reared in perfect accord with Nature's ways. This is the title of a new book of nearly 200 pages written by G. M. Doolittle, of Borodino, N. Y., and is now being printed at this office. It will be published and ready for delivery by May 10, 1889, and will be sent postpaid for one dollar. It will be printed in the highest style of the art, and is nicely illustrated.

In this book Mr. Doolittle details the results of his experiments in rearing queen-bees for the past four or five years, and is the first to present his discoveries to the world. It will be out in good time for every progressive bee-keeper to test the various discoveries which it details, during the present season. Send all orders for the book to this office. The usual discount to dealers in lots of 10 or more copies.

Bees and Vegetables.—The following vegetables are valuable to apiarists, says an exchange:

Of the pea and bean family the Lima bean is about the only one that attracts bees, though it is claimed by some that the various sorts of cow-peas (Dolichos) are honey-yielding.

The blossoms of the cucurbita tribe are very rich in honey and pollen; in other words, cantaloupes, water-melons, cucumbers, squashes, and even pumpkins are useful in more ways than one. The two former may be cut in slices and exposed to the bees during the dry month of August; being destitute of acids—unlike most fruits—they furnish a most valuable substitute for the nectar that is so scarce in the fields and woods at that time of the year.

Turnips allowed to run to seed are of the highest value to the bee-keeper; the variety called "seven-top" is said to excel all others in that respect. The same is true of mustard. Seed onions are very much relished by bees, and colonies become quite heavy from that source alone. The tassels of Indian corn also furnish a large quantity of pollen.

Extracted Honey is coming into use largely. It is most salable if it is put up in glass jars and tin pails, the former being preferable for small quantities, which may hold from one up to ten pounds. These should be carefully labeled and tightly closed, says the Lewiston *Journal*, and then adds the following:

The proper marketing of honey is of the utmost importance to the producer, and if good quality, and put up in such packages as are most popular, will command the highest price, and be in constant demand. Its consumption is rapidly on the increase at home, while abroad an extensive market is being opened up, of which California producers are taking advantage by direct shipment. Highest in quality and in price is the white comb honey, which this year commands a good price at wholesale, put up in one-pound sections. These are just the size an individual wishes to purchase to carry home for his family as he returns from his business occupation, and not only is of delicious flavor, but it is pleasing and attractive to the eye. The larger, old-fashioned boxes, containing many combs, are rapidly going out of demand, and soon will be difficult to dispose of at any fair price.

Paste for labels on tin pails may be made thus:

Make a thin solution of white glue, then thicken it with wheat flour until it is about the consistency of paste. This is to be made the same as any other paste. Cover one side of the label with the paste, then put on the honey can or pail, and I think you will not have any trouble about labels coming off.

Paste made in this way will hold the labels to the tin so well that they will not come off. Just try it, if you want to make your honey to be attractive, and to sell readily. A nice label on a can of honey helps wonderfully.

This Sensible Talk comes from a farmer, and was published in the *Pacific Rural Press*, advising the date-palm cultivators to encourage the presence of honey-bees to fertilize the "date" bloom, and thus cause it to bear fruit more abundantly. Under the heading of "Bees and Fruit," he writes thus:

EDITORS OF THE RURAL PRESS:—In a recent issue in an article on the date-palm of Mr. Wolfskill's propagation, I note what is said of the difficulty of fertilizing the fruit blossom. Allow me to suggest an idea to this venerable horticulturist, and others interested in the cultivation of this valuable food. I am of the opinion if a few colonies of bees were located in near proximity, say a quarter or a half mile, there would be no failure on the part of the fruit to perfect 90 per cent. of the berries. The busy little bee going from the male to the female plants with its basket of pollen, and rubbing about in the flora of each, completes the work which Nature for some reason has left to be performed by an outside agency. The "date" must be, I am quite sure, a honey-producing plant.

Note the economy of the method I propose. While it eclipses in its completeness the bungling manipulation of the human species, it also harvests the nectar which would otherwise be "wasted upon desert air." The prejudice of fruitmen is so strong and deeply rooted that I fear my suggestions will go unheeded. Often a bigoted people in the present stage of progress and radical change, lay a charge at the door of innocence, and persecute even unto death.

If the sins which are charged to the busy bee were laid at the doors of the guilty, our friend might escape; but the fact that it is found in bad company, condemns its case without further investigation. Remove all birds and other pests that prey upon your fruits, and convert your orchards into an apiary, and I will wager that you suffer no loss. Our best authorities claim, and I think correctly, that the bee never punctures the fruit, but follows rapidly any other agency which has commenced the work of destruction, repairing the damage so far as its manipulations are concerned, by collecting the nectar and sealing it in the tiny jars for the future use of his persecutors, who, in their blindness and ignorance, heap indignities upon its defenseless head for these good offices.

As the Scotch poet says, "Man's inhumanity to man, makes countless thousands mourn," so his inhuman treatment of his benefactors in the brute and insect life, is the cause of untold mourning.

From "Insect Life," sent out by the Division of Entomology, Washington, D. C., we learn this: "At a meeting of the Entomological Society of France, lately, Mr. H. Lucas exhibited two specimens of the common honey-bee, which were collected near Bordeaux, and which were remarkable from the fact that in one the left eye is small, while the right eye, on the contrary, is strongly developed, and even extends beyond the medium part of the front. With the other specimen the exact contrary occurs, and it is the left eye which is more developed than that of the right side, which is plainly smaller. On account of this extremely remarkable anomaly, it could be said that these bees, from this character, belong upon the one side to the male sex, and upon the other to the neuter."

EASTER-TIDE.

Written for the American Bee Journal

Now joyous spring-time cometh,
An' birds begin to sing—
An' ilka wild-bee hummeth
On busy wanderin' wing.

Now up o'er braes an' meadows,
Wee flowers peep frae the ground—
An' cushats 'mang the shadows
Their mournfu' love-notes sound;

Now ilka burnie's dimplin'
An' rinnin' ower wi' glee—
An' free frae winter, wimplin'
It's glad course to the sea.

Frae numbin' sleep up-springeth
Auld Nature's soul, an' straug,
An' sweet, an' clear out-ringeth,
Her resurrection-sang.

FRANCES M'CONOUGHEY.

Hilliard, Mich.

GLEAMS OF NEWS.

Death of an Eccentric Woman.—The following facts are gleaned from the Winchester, Va., *Times*, of March 27, 1889, under the heading of "Died with her boots on." It was sent us by Mr. E. C. Jordan, and reads as follows:

Miss Rosana McCormick, the remarkable anchoress, who was welt known in this city and in the northern portion of this county, was found dead in her bed (near Jordan's Springs) on Sunday morning. She was about 67 years old. The story of her life has quite a tinge of romance. She gave the best years of her existence to the support and care of her mother, upon whom she lavished all her affection. After the death of her mother, Miss Rosana determined to go it alone, and for a quarter of a century she has fought the battle of life with no companion save her faithful dog.

The close of the war found her a friendless and almost a penniless woman, but by industry and frugality she soon began to accumulate, and at her death she owned two farms, and a large number of cattle.

She was apparently a frail woman, but possessed indomitable energy. Often the neighbors would hear her driving her cattle to pasture at the hour of midnight, and in the spring time she would spend whole nights in the shed among her sheep and lambs.

She always wore men's boots, and in the years after the war, it is said she never failed to carry a loaded revolver in one of them. It appears that she rarely ever disrobed; her boots were on, and her body was lying on a fertilized sack, on the floor, with a rude pillow under her head, when her spirit took its flight to the land of shadow. Her lonely life terminated in a lonely death, no one was near when the dread summons came.

She believed with Shakespeare, "Throw physic to the dogs, I'll none of it," and persistently refused the advice of her neighbors to call in a physician. The coroner's inquest developed the fact that death had been caused by pneumonia.

Miss Rosana presented quite a picturesque appearance when she came to our city, arrayed in a tattered costume, and carrying a large staff in her hand, and always accompanied by her dog, whom she rightly called Faithful. Though she wore the rudest of garments, and usually slept on the floor, several dress patterns of silk and other costly material were found in her bureau, and several elegant feather beds were in the house.

Miss McCormick was the pioneer bee-keeper in that part of Virginia. Mr. Jordan writes concerning her thus:

About 40 years ago she found a swarm of bees on a bush by the roadside. She put them into a nail-keg, and from this colony she raised a fine old-fashioned apiary, and for a great many years she produced large quantities of honey. I think she deserves to be kindly remembered by the bee-fraternity.

This very eccentric woman had a good education, and was a well-posted and brilliant conversationalist. The most intelligent guests at the popular Jordan's White Sulphur Springs (near by) enjoyed her company. The was buried on the Monday following, a large attendance being present, at the grave-yard near by. She had a sister, niece and nephew in Ohio, but had not heard from them since the war. They will inherit her property.

Why Advertise in the AMERICAN BEE JOURNAL? Here are some good reasons:

1. Because it has a large and influential circulation in every State and Territory, Canada, and other foreign countries:
2. Because it is well-printed, and an advertisement in it appears neat and attractive, and invites a reading.
3. Because it reaches just the class of persons desired—professional men, lawyers, doctors, and the best of the rural population.
4. The rates are low as possible, and the returns from advertisements are satistactory.

Catalogues for 1889 are on our desk from—

George E. Hilton, Fremont, Mich.—12 pages—Apiarian Supplies.

A. O. Crawford, South Weymouth, Mass.—20 pages—Folding Paper-Boxes.

J. I. Parent, Birchton, N. Y.—1 page—Comb Foundation and Supplies.

A farmer near Talbotton, Ga., who lives on an estate formerly owned by his father, says there are good chestnut rails now in use on the farm that were split by the Indians when they owned the country.

The temperature of Siberia was once much milder than at present. This change of climate is said to account for the conversion of what were once sedentary birds there, into birds that migrate to South Africa and elsewhere.

Convention Notices.

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at Tarbell House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.
H. M. SEELEY, *Sec.*

☞ The DesMoines County, Iowa, Bee-Keepers' Association will hold its annual convention in the Court House at Burlington, on April 23, 1889, at 10 a. m. All bee-keepers are invited. JOHN NAU, *Sec.*

☞ The 11th annual session of the Texas State Bee-Keepers' Association will be held in the apiary of W. R. Graham, of Greenville, Hunt Co., Tex., on May 1 and 2, 1889. All bee-keepers are invited. The last meeting was held here last May, and was the best ever held. So we look forward to a good time next May. A cordial welcome and hospitality will be tendered to all who come. G. A. WILSON, *Sec.*

What Apiarists Say about the April number of the ILLUSTRATED HOME JOURNAL, which they have just received, may be ascertained by the following which are samples of the multitude:

Dr. A. B. Mason, Auburndale, O., April 6, 1889, writes: "The ILLUSTRATED HOME JOURNAL is, as the 'girl of the period' would say, 'awful nice.' It 'is a thing of beauty.' The paper, typography, illustrations and matter are first-class in every respect. It will be a welcome visitor at our house. Mrs. M. and the baby have had a good time with it already. The first article, 'One Hundred Years a Nation,' is very good indeed, being like that on page 16, on 'Four More States,' full of boiled-down information. Well, it is all good, 'so there.'"

S. A. Shuck, of Liverpool, Ills., writes as follows: "The ILLUSTRATED HOME JOURNAL came to hand in due time, and it is brimful of such fascinating pen-pictures of historical and other incidents that one finds no stopping-place. The illustrations, I think, are FINE INDEED. I wish you success."

H. D. Cutting, of Clinton, Mich., thus expresses his views of it: "The ILLUSTRATED HOME JOURNAL is like everything else from your office—clean, bright and tasty, filled with good reading from cover to cover. I wish you great success."

E. H. Cook, of Andover, Conn., editor of the "Bee-Hive," writes: "The April number of the ILLUSTRATED HOME JOURNAL is at hand. It is a very neat and tasty publication. I shall mention it in the next issue of the 'Bee-Hive.'"

J. B. Mason, of Mechanic Falls, Maine, acknowledges the receipt of the ILLUSTRATED HOME JOURNAL for April, and says, "I shall be much pleased to receive it regularly, and I shall offer it in clubs with the 'Bee-Keepers' Advance' in the next issue."

Elvin S. Armstrong, of Jerseyville, Ills., thus writes: "On behalf of 'the ladies of the household,' I would say that your ILLUSTRATED HOME JOURNAL for April came duly to hand. You should be proud of it—we are. I wish it the greatest success."

F. A. Snell, of Milledgeville, Ills., writes: "The ILLUSTRATED HOME JOURNAL is received and read. It is very nicely gotten up, and we are well pleased with its contents."

Henry A. Cook, editor of the Denison, Iowa, "Bulletin" remarks thus: "The ILLUSTRATED HOME JOURNAL looks well, and so far as its appearance and contents are concerned, certainly starts out well. I hope you will find it both pleasant and profitable to continue it."

Mrs. W. H. Bright, of Mazeppa, Minn., acknowledges the receipt of the April number of the ILLUSTRATED HOME JOURNAL, and adds: "We are much pleased with it."

Mrs. T. F. Bingham, Abronia, Mich., writes: "We have been much interested in perusing the April number of the ILLUSTRATED HOME JOURNAL, and wish it much success."

Never did the advent of a magazine for the family touch such a responsive chord, or receive such a hearty welcome.

Trial subscriptions will be taken 3 months for 40 cents each; or it will be clubbed with the BEE JOURNAL for a year at $2.00 for both. Agents, who are working for premiums, may take "trial subscriptions," and count 4 as one yearly subscriber. One sample copy sent free to subscribers of the BEE JOURNAL, upon application. That will tell you all about the "Premiums" offered for getting up clubs, and "Cash Prizes" for the largest clubs sent in before Sept. 30, 1889. "Good pay for good work" is our motto. See page 238.

QUERIES AND REPLIES.

Dividing and Contracting to Prevent Drone-Comb.

Written for the American Bee Journal

Query 626.—If I divide my bees by taking the queen and frame of brood, and place it on the old stand, shake most of the bees off in front of the hive on the old stand, remove the old hive to a distance, and give the new swarm, say five empty frames with starters, fill the empty space with dummies, and place the sections from the old hive on the new, will they be more liable to build drone-comb than if allowed to swarm naturally, and contract to the same number of frames?—Iowa.

No.—MAHALA B. CHADDOCK.

No.—DADANT & SON.

They will.—J. P. H. BROWN.

I think not.—EUGENE SECOR.

I should think so.—J. M. HAMBAUGH.

No, I do not think that they will.—H. D. CUTTING.

I think not; but I cannot say for certain.—MRS. L. HARRISON.

I doubt if you will find much difference. Try it and report.—C. C. MILLER.

I think not unless there is a "swarming fever," which is not allayed by the division.—R. L. TAYLOR.

I do not think so. I see no reason why they should. Possibly, however, a desire to swarm might be retained, then there would be more danger.—A. J. COOK.

Yes, they would be very liable to build drone-comb. It is a poor way to increase your bees.—C. H. DIBBERN.

I should say no. A queen-excluder should be used, to prevent the rearing of brood in the sections.—J. M. SHUCK.

Probably there would be little difference. That frame of brood will be apt to cause some drone-comb in either case.—G. M. DOOLITTLE.

Your plan would be an excellent one, were it not for the liability of bees to build drone-comb when not wanted. I should expect more to be built with your plan.—W. M. BARNUM.

I think that they would be more likely to build drone-comb, but much would depend upon the number of bees, the age and prolificness of the queen, and the honey-flow.—M. MAHIN.

I do not know, but I should think not, if there was plenty of room in the sections for storing surplus, and the queen was excluded from them, and the dividing done before the swarming impulse.—A. B. MASON.

It will depend upon the age of the queen. But little store or drone-comb will be built in the brood-nest, if the queen is young and prolific; otherwise there will be too much drone-comb. But as a rule, there will be drone-comb built by proceeding in the way you mention. I have tried your plan often, but I now prefer to let the bees swarm.—G. W. DEMAREE.

This question opens up too big a subject for the space allowable, as the whole matter of division, in connection with natural increase, is at issue. A plain answer cannot be given, so I "pass."—J. E. POND.

No; but the procedure named will usualy result in getting a lot of bee-bread in the sections; for, until comb is built in the brood-chamber, there will be no other place to put the pollen. One of the five frames should contain empty comb, or the sections should not be put on till comb is built.—G. L. TINKER.

Probably you would discover but very little difference. There are too many uncertainties about the matter to give a direct answer.—THE EDITOR.

Uniting Colonies Without Destroying the Queens.

Written for the American Bee Journal

Query 627.—1. In uniting two ordinary colonies of bees without destroying one of the queens, is there not great danger that both will be killed? 2. If not, is there not danger that the surviving queen may be seriously injured?—Bee-Keeper.

Yes.—G. L. TINKER.

No, to both queries.—A. B. MASON.

1. There is some danger. 2. There might be.—J. M. HAMBAUGH.

It is best to destroy one queen before uniting.—H. D. CUTTING.

1. There is danger. 2. There is. Always cage the best queen and destroy the other.—J. P. H. BROWN.

1 and 2. Unless the uniting is so done that there is no fighting among the workers, I should fear injury to both queens.—R. L. TAYLOR.

1. It would seem so, and yet I have had no experience to confirm the fear.—EUGENE SECOR.

I think not; though I usually destroy the queen that I think is the least valuable. This is certainly wise, if there is any choice in the queens.—A. J. COOK

1. If rightly done at the right time, I do not think that there is much danger. 2. Not much, I think.—C. C. MILLER

There is some danger of it, indeed. It is much better to kill one queen, especially as one of them is almost sure to be more valuable than the other.—DADANT & SON.

No, not in swarming time, as we have frequently united two, and many times three swarms, in one hive, and left them to adjust the queen question to suit themselves, and usually with good results. Still, if we always had time to examine and find the queen, we should prefer to give only one, and that of course the one which we considered best. At any other than the swarming period, we should never think of allowing more than one queen.—MRS. L. HARRISON.

1. No; both queens are never killed. This is my experience. 2. The surviving queen is all right.—MAHALA B. CHADDOCK.

1, The bee-keeper should choose between the two, and do the killing himself. If he does this, No. 2 needs no answer.—J. M. SHUCK.

1. I think not; still I prefer to remove the reigning queen before introducing the new one. 2. If proper precautions are taken, any queen may be safely introduced. See various articles written on the subject.—J. E. POND.

1. No. I never knew such a thing to happen. 2. No. A queen not worth looking after in uniting, will generally come out all right. If I had 2 choice queens, I should prefer not to treat them that way, as each would be worth saving. No improvement of stock can be made by the above plan.—G. M. DOOLITTLE.

This method is quite commonly practiced, and, usually, with good results. Of course, there is danger of the surviving queen being disabled; if so, the bees will attend to that matter. This "method" is based upon the supposition that there is plenty of brood in the hive. I would never introduce a really valuable queen upon this plan.—WILL M. BARNUM.

No. My experience is that only one will be killed. The queen is balled by the bees, and finally killed. I do not think that one mature queen ever destroys another; neither is it likely that the surviving queen will be injured.—C. H. DIBBERN.

1. I have never *known* both queens to be killed, but I think that there is danger of it. 2. In a case of that kind, I had both wings of the surviving queen gnawed to the stubs, and the stubs to shreds. She was not otherwise injured.—M. MAHIN.

1. It is a dangerous proceeding, but they sometimes come out all right. Sometimes both queens are "balled," and both may sometimes be killed. To say the least, it is a sloven, careless way to unite bees. 2. Yes; where a queen has once been balled, as she is most likely to be under such treatment, she is rarely ever worth much.—G. W. DEMAREE.

Seldom, if ever, are both queens killed, and it is not always the best queen that survives—it is therefore better to select the best queen if you can, and kill the other yourself, for there is some danger of the surviving queen being injured.—THE EDITOR.

CORRESPONDENCE.

POLLEN.

Getting the Pollen Out of the Combs.

Written for the American Bee Journal
BY G. M. DOOLITTLE.

A correspondent writes: "Please tell us in the AMERICAN BEE JOURNAL, how I can get the pollen out of some combs which I have. I fear that it will hurt them, as there is so much of it that the bees may not remove it."

In some localities bees store so much pollen in their combs, that it seems to those not as familiar with the inside workings of the hive as they might be, that some device for removing this pollen would be of great benefit to them; hence I have heard of offers as great as $25 from a single person, for some plan to remove pollen from the comb.

Some advise making into wax the combs containing much pollen, and then work the wax into comb foundation to put into the hive for the bees to draw out into the comb again; but all such advice seems to me to be a damage, rather than a help.

In this locality, we get large quantities of pollen—probably as much as is gathered in any place in the United States—yet I have never melted up a comb on that account; neither did I ever have any thrown out by the bees, as others claim that they have, unless the pollen had become mouldy.

With me, there are two different periods that the bees store much more pollen than is worked by the nurse-bees into chyme for the young brood; one is, during the bloom of hard maple, and the other during the white clover bloom. I have had combs of pollen gathered during the yield from hard-maple which weighed as high as 4 pounds; at such times as this I work as follows:

Whenever the bees gather so much as to crowd the queen, I take it away for the time being, and place empty combs in its stead. If there comes a few rainy or windy days at this time, I find that the pollen is all exhausted, so that the cells are once more empty or filled with eggs, as it takes large quantities of food for the numerous brood at this season of the year. After apple-bloom there is but little for the bees to work on, and the surplus pollen is soon used up and more needed, when I put back that which was removed, and thus brood-rearing is kept up more effectually than by feeding syrup, honey, or any of the many plans of stimulative feeding.

I consider plenty of pollen in the combs during the period of scarcity between apple and clover bloom, to be of great advantage. Of course this season of scarcity may not come just at this time with all, but, in my opinion, there is a period of scarcity of pollen at times during heavy brood-rearing in all localities; wherever such is the case, this pollen is of far more value than is generally conceded, and when all bee-keepers realize its true value, there will be none left to ask how they must work to get it out of the combs by any process, save having it converted into brood.

The pollen gathered during the white clover bloom is treated differently from that gathered early, which rarely ever has honey placed at the top of it, while that from clover is placed in the cells till they are nearly three-quarters full, when the cell is filled with honey and sealed over, so as to preserve it against a time of need the next spring. This pollen is what some fear so much, if left in the hive during the winter months, believing that it is the cause of bee-diarrhea; but I find that where bees winter perfectly, no brood is reared of any consequence till into March, and where no brood is reared, there is no pollen of any amount eaten.

Bees will starve with plenty of pollen in the hive, when they are not rearing any brood, as I have proven several times to my detriment in trying experiments; and it is only as brood-rearing commences that we can depend upon pollen to keep our bees from starving, in any sense of the word.

During the summer I find much pollen in this preserved state, especially in hives that are for a little while queenless, and when such are found, they are hung away in the room for storing combs, and sulphured, as occasion may require, to kill the larvæ of the wax-moth, which are sure to injure such combs very much, if not thus treated.

Combs containing pollen under honey are readily distinguished from those without, by holding them up before a strong light, and looking through them, especially so if the combs are new.

When spring opens, I again take the opportunity of placing all the combs that I have on hand containing pollen, near the brood, and I find that this answers a better purpose to stimulate brood-rearing at this time of the year, than the feeding of rye or oat meal, as is so often recommended. It is better, inasmuch as it does not lure the bees out of the hive in all sorts of unreasonable weather, to die from cold and the wearing of themselves out, so that they die of old age much sooner than they otherwise would, say nothing of the cost of the meal. In this way the pollen is used to a far better advantage than by inventing a machine to throw it from the comb.

If the correspondent who asked the above question, will try this plan, I think that he will find that his fears are groundless, regarding the bees leaving the pollen without removing it. If he should not, and still desires to get it out, it can be done by soaking the combs containing the pollen, in tepid water, for a week or so, till the pollen becomes soft, when it can be thrown out with the honey-extractor, the combs dried, and afterward given to the bees again.

Borodino, N. Y.

QUEEN-REARING.

Method of Rearing Queens for my Own Apiary.

Written for the American Bee Journal
BY J. F. M'INTYRE.

We have had a good rain this month—10 inches in four days, making 22½ inches up to date. The prospects are medium to good. Swarming has just commenced. I am preparing to start nuclei, as I make my increase in that way, from the best colonies that swarm first. I have tried nearly very way of hatching queens and starting nuclei, that I have seen in print. As I have never seen published the way I practice most, and like best, I will describe it. It is as follows:

I select the strongest and best colonies in the yard, that I wish to breed from; if I want early queens to be laying when the rest of the apiary is swarming, I give them hatching brood from other colonies to make them swarm early. When they swarm, I catch the queen, and allow the swarm to go back, disposing of the old queen as may be thought best.

If the colonies swarmed according to rule, in about ten days I listen at the top of the hive every evening, till I hear the young queens piping; the next morning, about 8 o'clock, I take a number of queen-cages, open the hive, cut out the queen-cells, and put one of them into each cage.

I can easily find the queen that is hatched, by her piping, when I cage her, too. I have had 10 queens hatch in ten minutes after the cells were caged.

My hives are 10-frame Langstroth, and I usually make 10 nuclei out of each colony, by taking one frame of brood and bees for each nuclei, and putting it between two other combs with some honey in.

If you have enough hatched queens to go around, let one out in each nuclei; if not, give them a cell, and shut them up until evening.

When the swarm is hived on a new stand, the queen-cells not capped in the old hive are often neglected; by returning the swarm, they are more uniformly good, and the bees are less likely to give up swarming and tear down the cells.

A strong colony like this is the best kind of a "lamp-nursery," because you only need to visit it about once in two days, catch the queen that has hatched, and cut out all cells that have a little opening where the queens stick their tongues out to be fed, and put them in cages; for the queens will bite open the cells, and come out very quickly when the bees are driven away.

I have used one colony for a long time in this way, giving fresh queen-cells, and cutting out those ready to hatch, every two days.

Fillmore, Calif., March 25, 1889.

LINDEN.

Report of Two Season's Work in the Apiary.

Written for the American Bee Journal

BY F. J. KRUMM.

Bee-keeping has been rather an up-hill business in this locality the last two seasons. I commenced the season of 1887 with 21 colonies in chaff hives, all hybrids except one Italian colony; during swarming time 54 swarms issued, but by uniting swarms and doubling-up the old colonies, I increased my apiary to 44, and obtained 600 pounds of comb honey, and 200 pounds of extracted honey.

The season of 1888 I commenced with 36 colonies; 61 swarms issued, and I increased my apiary to 58 colonies; 27 of the first swarms were accompanied by virgin queens, the old queens remaining with the parent colonies. Eight queens were lost on their mating tours. I reared 14 queens, of which only 5 became fertilized.

The honey harvest commenced very encouragingly. During fruit-bloom, and wild-ivy bloom, the bees stored honey in the brood-chamber. White and Alsike clover began to yield nectar about June 5, and bees commenced storing honey in the sections. On June 28 basswood opened, and yielded fairly well until Tuesday noon, July 3, when an east wind set in, and no more honey was gathered (with basswood in full bloom) until July 7, when the wind changed to the south, and at 4 o'clock it seemed as if every bee tried to be the first to get to the woods. Now, the question is, how did the bees know that just at that time basswood began to yield nectar again? But it only continued a few days, and that was the last of our spring honey crop.

The fall honey crop was almost a total failure, but I obtained 400 pounds of comb honey in one-pound sections, and 300 pounds of extracted honey from unfinished sections. So far I have lost 6 colonies in wintering—3 starved, and 3 were queenless.

Pleasant Bend, O., April 2, 1889.

Pat Going into Baze.

Written for the American Bee Journal

BY W. S. N.

Och, Meester Printer, yees a nioity foin man,
Yees maik iverything so illigent wid your pen;
It maiks meself as mad as any wit hen,
To see such unholy blathering about yer haze—
Better be more saveing of yes q's and pays.

Its meself, sure, and me own wife Kithreen
That bought a foin swarm, and an illigent queen,
With workers and droons with honey probossoms,
To ate oop the honey-dew, and throost in the blossoms.

But bad luck to me, I was just as big a foel,
As Eugene Secor's awate kicking muel;
If yer raders are ignorant, and don't get my maneing,
Send for the bay-paper, ye'l see them in "Glaning";
They are crazy as bid-bugs, kicking for their lives—
Muel Doctors say its "breaking out of the hives."

Now what I'm 'bout tellin', yees, consarning my baze,
Vees may put in yer paper, Mr. Printer, if ye plaze;
And bejabers, sor, its a sad thing for to tell,
What to me and my Kithreen lately befell.

Its just two years now since we two were wed—
Believe me, Meester Printer, our dare Jemie, he is dead;
And his sowl lays slapeing in the meadow of aze.
His poor mither went and got down on her knaze
Crying and wapeing and told it to the baze—
And this is what she solemnly and riverently said:
"Baze! Baze!! Dear Baze; our Jemie is dead!"

But thin, sure, came the rub, as Shakespeare says,
Somewhere ye'l rade it in his wonderful plays:
"It'a more noble to suffer the arrows and *stings*"
Than to stand oop with shalala to battle in the rings—
And give them fits—but, ah! a wild hellemelleu,
The varmints ivery last one buzzed and flew,
And stabbed my Kithreen while knaleing on the ground,
And knocked her out twice the very first round.

I drew my shalala, born in old Tyrone,
I busted three quanes and killed three droons;
Kithreen was so fraid she knaled down and prayed
To the Virgin, crossed, and counted ivery last bade.
Looking up to heaven, she prayerfully said:
"As now I lay me down to slape,
I pray the Lord my sowl to kape;
If I should die before I wake,
I pray the Lord the baze to kape."

Now if iver yes be blathering so very foin,
Count on no baze, Meester Printer, in moin.
If I should bust and die, my last word would ba,
The best way to kape baze, is to keep um away.

It's me picture I'll send yees all beautifully stung—
I'd rather live in Erin and be shot or be hung,
And spind in pace and harmony the rist of my days,
Than indure the "arrows and stings" of the baze.

America! the Divel take yes land of the fray,
Of toads and snakes, and cussed old bay;
Give me ould Ireland, the land of foin praters,
And yees may go to blazes wid yees vile, stinging crathers.

Please read me epitaf, whin I am dead:
"Beneath this stone lies Pat of Tyrone,
That was kilt by a bay, and chased by a droon;
And died by the swellin' of the head;
No, not ded, sor, but just slapeing.
I'd rather be in Purgatory dead,
Than to spind me life in bay-kaping—
Me and Kithreen in one grave slapeing."

Mason City, Iowa.

Simmins' Non-Swarming System, and the AMERICAN BEE JOURNAL for one year, for $1.25. The subscription to the BEE JOURNAL may begin now.

DIVIDING.

Advantages of Dividing Colonies Over Natural Swarming.

Written for the American Bee Journal

BY WM. G. HEWES.

I was much surprised to see on page 69, the number of bee-keepers who advised the propounder of Query 610, to "let his bees swarm." Prof. Cook, in advising that way, did especially fill me with wonder, as in his "Bee-Keepers' Guide," (at least the old edition—I have not the new one) he distinctly states his preference for dividing.

Eight years ago, in Louisiana, I got that book, and practiced dividing, as laid down therein, on my colonies. The result was that I doubled my apiary, and obtained over 200 pounds of extracted honey per colony, which sold in St. Louis for some $900.

A hundred yards or so from my apiary, a brother had 80 colonies which he let swarm naturally. His increased to only about 100 colonies, and the 80 did not gather one-half so much honey as my 50. His were blacks, with a trace of Italian blood; mine were mostly pure Italians.

I estimated then, and I still think so (after some years of bee-keeping on a large scale, during which time I have had much experience with both swarming and dividing), that Prof. Cook's "Guide," from having guided me into the path of dividing, was worth, to me, $200 that season, or $4.00 for each spring colony, besides the extra increase which I obtained.

Three years ago I commenced bee-keeping in California, with 115 colonies (85 of them on shares.) There were other apiaries located around me, from 2 to 5 miles. The first season was a good one, the second I got nothing, and last year was almost a failure. In the three seasons, two of them poor ones, by dividing I increased the 115 colonies to 357.

Some of my neighbors, who let their bees swarm, have a little more, and some of them a few less colonies than three years ago. Their locations were all as good, and most of them better, than my own, as mine is contiguous (or was—I have moved since) to large grain-fields and oak forests, neither of which supplied any honey.

In my apiary the past season were 20 colonies in hives with a frame 2 inches shorter than the rest of my apiary, but in all other respects—strain, strength and stores—alike. As I could not divide these colonies by my favorite method, without supplying hives of a like pattern, I decided to let these 20 swarm.

The apiary consisted of 234 colonies—214 to be divided, and 20 to divide themselves. The 214 increased my apiary to 356; the 20 added one colony to the number. The 214, with the increase from them, averaged about 50 pounds of honey to the colony, and built (I was too poor to buy foundation) some 2,000 combs in Langstroth frames; the 20 did not average 15 pounds per colony, and of combs built not one, as their hives were full.

In a comparison of the two systems, I find the following advantages in favor of dividing colonies:

By dividing, the queens, and even the drones, are reared from selected stock; by swarming, the bad strains with the good are equally propagated. By dividing, our bees sally forth to sip the nectar from *two* strong colonies, where in the early spring was found but one; by swarming, our strong colonies of the early spring, become weak ones just when we most need them strong. By dividing, ye bee-man walketh with solid footing on ye *terra firma*, where evolution intended him; by swarming, ye bee-man must needs ofttimes, as ye little bird, roost high in ye tree, and when he falleth therefrom, he findeth he is not made as ye little bird. Aye, verily.

Newhall, Calif.

ALSIKE CLOVER.

The Origin and Value of this Excellent Honey-Plant.

Written for the American Bee Journal

BY S. J. YOUNGMAN.

As the season is now at hand to sow both for forage and bee-pasture, perhaps a few hints from those having had experience in that direction would be both seasonable and profitable to those having stock to feed and graze, and bees; of which there is no doubt but what the sowing of certain plants may help the yields of honey in localities where drouth is more or less prevalent.

Much has been said in favor of Alsike clover, and my experience with it, both as a forage and nectar-producing plant, will warrant all the praise given in its favor; but, at the same time, all contemplating its propagation, should endeavor to do so intelligently, as its success and large growth depends largely upon the manner sown, and soil planted on. Many mistakes and consequent disappointments have been made by not knowing the characteristic traits of this plant.

I would advise, first, never to sow Alsike clover alone except for seed, but sow with red clover and timothy for all purposes. Second, never sow on dry, sandy land; but on clay loam, bottom land, and reclaimed swamp and marsh land it may be expected to flourish luxuriantly.

As so little is known of this valuable plant, and its origin, I will, for the benefit of the readers of the AMERICAN BEE JOURNAL, give the report of the Department of Agriculture for the year 1887, which may be found on page 304 of the Report, with a beautiful illustration of the plant:

"Alsike Clover (*Trifolium hybridum*).—This differs from the common red clover in being later, taller, more slender, and succulent; the flower-heads are upon long pedicels, and are intermediate in size and color between those of white and red clover. Its

ALSIKE CLOVER IN BLOOM.

botanical name was so given from its being supposed by Linnæus to be a hybrid between those clovers; but it is now known to be a distinct species. It is found native over a large part of Europe, and was first cultivated in Sweden, deriving its common name from the village of Syke, in that country. In 1834 it was taken to England, and in 1854 to Germany, where it is largely grown, not only for its excellent forage, but also for its seed, which commands a high price. In France it is little grown as yet, and is frequently confounded with the less productive *Trifolium elegens.*"

The following is condensed from *Les Prairies Artificelles*, by Ed. Vianne, of Paris:

"Alsike does not attain its full development under two or three years, and should, therefore, be mixed with some other plant for permanent meadows. It is best adapted to cool, damp, calcareous soils, and gives good results upon reclaimed marshes. It is adapted neither to very dry soils, nor to those where there is stagnant water. Being of slender growth, rye-grass, rye or oats are often sown with it, when it is to be mowed. In fertile ground, weeds are apt to diminish the yield after a few years, so that it requires to be broken up. It is generally sown in May, at the rate of 6 to 7 pounds of clean seed to the acre; sometimes it is sown in pods, at the rate of 50 to 100 pounds to the acre, either in spring or autumn, after the cereals are harvested.

"Alsike sprouts but little after cutting, and therefore produces but one pasturage. The yield of seed is usually 170 to 180 pounds per acre. The seed separates more easily from the pods than that of ordinary clover, and as the heads easily break off when dry, care is required in harvesting.

"It does not endure drouth as well as the common red clover, but will grow on more damp and heavy soils, and it is said that it can be grown on land which, through long cultivation of the common clover, is clover-sick."

Lakeview, Mich.

FARMERS.

The Adaptability of Bee-Keeping to the Farmer.

Read at the Fremont Farmer's Institute

BY A. M. ALTON.

This is a subject which is receiving considerable attention at the present time. One question is, will it properly develop the intellectual and moral nature, so that the worker will develop all his faculties while striving to earn a comfortable subsistence?

"It is not all of life to live, nor all of death to die."

As to bee-keeping, there can hardly be a question as to its moral and intellectual tendency; for proof I have only to cite you to shining examples (both living and dead), who are, or have been, engaged in the pursuit. Who ever heard of a bee-master being guilty of a crime? Then it will be congenial to those fitted by nature to follow it, just as a natural mechanic feels as home with the tools with which he cheerfully earns his living.

There is no use in saying that every man will make a successful bee-keeper, any more than to say that every man is by nature an artist, or every woman a musician. Unless a person possesses certain qualifications, either natural or acquired, he would very likely make a failure of bee-keeping. Among the necessary qualifications are perseverance, industry, the love of home more than riches, a talent for looking after details, promptness, and last, but not least, reasonably good health.

As a rule, I believe that bees should form a part of the surroundings of every ideal rural home; not only because it adds to the beauty of the landscape, but because in the economy of nature, bees are necessary to the perfect fertilization of the vegetable kingdom. And then, you can take your enjoyment as you go—mixed, it is true, with pain and toil, but still a life of enjoyment.

You have one important advantage over the merchant: Your out-door life gives you a physical vigor which he cannot enjoy; you have better food than he, even if he eats from the same dish, for he has not the same hunger to spice it. The man who eats his food with a thorough relish is the better man for it physically and mentally, and perhaps morally and spiritually.

Let not one suppose that bee-keeping connected with farming is a pleasant pastime which lazy and incompetent people can take up with success; for the lazy and incompetent, there is no success; for the lazy and incompetent, there is no place anywhere. It would be well for them to die at once, if they were fit to die. But any man or woman who will learn the business and begin wisely, can find in bee-keeping with farming, a healthful pursuit.

If farming were conducted in a better way than it usually is, and a few colonies of bees kept in connection with it, the two pursuits would be found to harmonize. As a rule, farmers attempt to work too much land, and the consequence is a low grade of farming, poor crops, their crops of both grain and fruit are inferior, and if there is a bee-keeper near, they are apt to try to make themselves believe that the bees are the cause of the poor crops. If instead of trying to farm 200 acres, they would put the same amount of labor on 80, and keep about 50 colonies of bees, sowing Alsike clover, buckwheat, etc., the investment would be much less, and I think that the results would be more satisfactory; and then, at times, if the farmer was not well balanced, he would almost go crazy with so much to see to.

Perhaps this question might be asked: What branch of farming would be best to unite with beekeeping? I would advise stock and poultry raising. Whatever branch the farmer may take up, he must expect to forsake all for that branch.

"When the loud clear notes of the dinner-horn
Are heard by the farmer while plowing the corn,
With the day just begun on a fine summer morn,
To him it was warning
That the bees are swarming,
And the interest is equal to a new baby born.
Old Doll is left standing alone in the row,
In the spot where the dinner-horn prompted the 'whoa,'
And off to the house, in a sweat he must go,
For when bees go a-frollicking
Like bobolinks rollicking,
No time must be lost in delays, you know."

Fremont, Mich

BASSWOOD

Honey as a Medicine—Planting Linden Trees.

Written for the American Bee Journal

BY H. O. KRUSCHKE.

I have recently been examining my apiary, and the bees have wintered splendidly.

Sore Eyes and Erysipelas.

About two years ago my neighbor, Wm. Megow, had the misfortune to have one of his eyes put out. He received remedies from our best doctors, but they gave him no relief. Having heard that honey was good for sore eyes, he sent his son to me after some. I sent him extracted honey, which gave him immediate relief. He diluted it with water and dropped it into the eye.

Mrs. Esther Worden, of Necedah, Wis., was suffering with erysipelas; she was advised to bathe the affected or broken-out places with diluted honey. She did so, and was cured in a very short time.

Planting Basswood Trees.

I attended our State Bee-Keepers' Society meeting at Madison, in February. It was as good as any meeting that I have ever read reports of—that is not saying much, however. Very little was done of practical value to bee-keepers, aside from becoming acquainted with some members of the "sweet" fraternity. The only thing having real benefit to bee-keepers in view, was a resolution, requesting city and town authorities to include the basswood in their shade-tree selections.

I would like to see something better inaugurated regarding basswood. It is planted so sparingly as compared with elms or soft maples. It is certainly as beautiful as these, and by far more useful, and no tree is hardier or more easily grown.

What I am thinking of is this: The State should grow linden trees for gratuitous distribution. Bee-keepers could then take them, and plant them along the streets, roads, and in parks; and the authorities should look after such trees when planted. Bee-keepers would not be asking too much, for fish are hatched for our sportsmen, and also game wardens are kept. Money is distributed to hortieultural and agricultural societies, stock-breeders' and wool-growers' societies, and to State and County fairs, etc. We would only be very modest in our request, and I am sure that we would meet with little difficulty in obtaining it.

The nicest lane I have seen for a long time, is the one leading from our State University (at Madison) grounds to the Experimental Farm. It is nearly half a mile long, and is lined with linden trees on either side the whole length. Bee-keepers, wake up! Favors are granted to those who ask for them. I would like to hear from others regarding my ideas of planting linden trees.

Duester, Wis.

BEE-SUPPLIES.

Some Good Suggestions to those Who Use Bee-Supplies.

Read at the New York Convention

BY C. W. COSTELLOW.

In these days of sharp competition, any business, to be successful, must be conducted with great economy, even to (and I think that I ought to say especially in) the smallest details. Bee-culture, in all its branches, is no exception to this rule. To the older bee-keepers, I hardly think that I can give any new advice, but to those comparatively young in the business, I may be able to offer some points which will be profitable for them to consider.

First, I find that we can reduce our expenses in two ways—by a saving on the first cost of the supplies, and by getting the most value, or use, out of those supplies.

Nearly all of the dealers in bee-keepers' supplies offer discounts for goods purchased during the winter months, and one of the easiest ways to save, is to take advantage of these discounts. Dealers like to do this, for several reasons, viz: Without these discounts there would be comparatively nothing done in the supply trade in the winter; and then, they like to have these early orders, to relieve the crowd and rush of business during the honey season. It also keeps the business moving, and furnishes the cash with which to run it through the dull season.

The bee-keeper should include in one order, all that he will be likely to need throughout the season; by this means, he has the advantage of wholesale-rates. Here we also get another advantage, namely, on transportation.

Expressage on transportation of heavy goods is always expensive. If the goods are shipped by freight, the greater the weight, the lower is the freight, up to 100 pounds. For illustration, the rate on supplies from where I live in Maine, to Boston, Mass., is, for a package weighing 5 pounds, 25 cents; on a package, or several, weighing 100 pounds, it is 25 cents; and on a package, or several, weighing 200 pounds, it is only 30 cents. So you see that a great deal can be saved by ordering the supplies all at once.

To show the importance of this matter of saving on transportation, allow me to give the following case, which actually occurred:

In 1887, a supply dealer sent two bee-hives to a new customer; the next July he received an order for supplies amounting to 75 cents, to be sent by express, which cost 60 cents; on July 14, the same customer ordered $1.00 worth of goods by express, which also was 60 cents; and again on Oct. 6 another order of $1.71, by express, as before, with the same charge for transportation. Here we have $3.46 worth of supplies, on which the customer paid $1.80 express charges; *all of which* might have been *saved*, as all these supplies might have been sent with the hives, by freight, for the *same amount* that the hives were sent for. That customer has learned something by experience. I learned that he will know better another year what he wants, and will order all of his goods (as nearly as possible) at one time.

There is another way in which we can save on the first cost, and that is, by buying of that dealer who offers goods at the lowest rate; but this is not always the best way to do—it is often a "penny wise and pound foolish" transaction.

This brings us to consider the second way in which we can save expense, and that is, by getting the most value for our money. It is true, that a supply dealer may, for a short time, and for some special reason, offer goods at less than cost, but a business cannot be conducted for any considerable time in this way; and if a dealer offers goods considerably lower than others in the same business, we may be reasonably sure of one or two things—either the dealer is manufacturing cheaper than his competitors, or he is furnishing a cheaper grade of goods. My advice in this line is, buy the best goods that can be found; and get them as cheap as you can.

The *best* goods are the most profitable, for several reasons, viz: In the matter of hives and supplies which we use year after year, the stock out of which they are made must be good, so that they may last a long time; sections, and like goods, should be of good quality, to be attractive, and draw custom in the market. All supplies should be accurately and nicely made, so that the several parts may be put together without waste of time; and if everything is accurately made, the bee-keeper will save much time in all the manipulations of the apiary, for "Time is money."

Much money is wasted in the purchase of supplies, by changing often from one style to another. It is true, that if our pursuit is to advance, some one must experiment with new and different arrangements; but as experimenting is an expensive business, if we are trying to save all we can on supplies, we should leave the experimenting to others.

Use the Standard Sizes in Bee-Supplies.

The last thought to which I shall call your attention is, to use standard sizes in all your bee-supplies; by which I mean, sizes which are kept in stock by dealers generally; for by this means you will be better able to take advantage of business competition; you will be able to get the supplies at any season of the year, without loss of time; and, as a general thing, you will be able to buy proportionately cheaper than you could odd-sized goods, which must be made to order.

There are probably many other ways to save on the expense of supplies for the apiary, and if we gather and profit by the various thoughts advanced by experienced bee-men, it will be quite a source of profit in our business.

HIVES.

The Size of Hives Best Suited to the Apiarist.

Written for the American Bee Journal

BY J. E. POND.

The question of "how small a hive *should* be," is now being agitated, but I judge that the advocates of small hives would be looked upon with more favor, if the fact that some reading between the lines could be done. One thing is certain, the hive that is "just the thing" for the expert producer of honey, will not give good results in the hands of the noviee, or even the general bee-keeper, as a larger hive.

Tests, as ordinarily made, are of little value. Figures wont lie, if footed rightly, but they may be so placed as to prove almost anything in a statistical way; so with hive-tests—they may be made for the purpose of proving a theory, and apparently prove it; but when tested in another way, prove something else.

As yet but little real advance has been made in hives since the "Langstroth" was first made public; and as yet no better general results have been made than with the ordinary Langstroth hive. Mr. B. F. Carroll secured his big yield with this hive, and I doubt if he could have obtained it with a smaller one.

There may be times and places where a smaller hive would work well, but the extra cost of a ten-frame hive over an eight-frame one is so small, that the loss to a single colony, when the larger hive is needed, would more than out-weigh the extra cost of a dozen hives.

In the answers to queries, I find that the great majority favor a ten-frame hive. This agrees with my own experience, and I believe that experience generally will coincide therewith.

An ordinary ten-frame Langstroth hive, 14¼ inches wide, is none too large for a fair colony, especially when the colony is expected to store its own winter supplies. Only experts can succeed in cleaning out the brood-chamber of honey, and filling up for winter by feeding, and they fail as often as they succeed.

Now the ordinary bee-keeper is on a different footing, and it is he for whom I am writing; and I advise, as the result of my own experience, backed up by the experience of bee-keepers generally, that better results will be obtained from a ten-frame Langstroth hive, or its equivalent, than from any smaller one, no matter how many horizontal splits it may be cut into.

North Attleboro, Mass.

WINTERING.

Experience with Toads—Priority of Location.

Written for the American Bee Journal

BY CHARLES WALKER.

I am putting the bees out of the cellar, and I find that I have lost 7 or 8 colonies so far, from 105 wintered in the cellar. The trouble was that I could not keep the temperature low enough, the mercury frequently going up to 55° or 60°. April, so far, has been full of "squaw" winters; to-day, however, has been pleasant, with south wind, and house-cleaning has been the order generally with the bees. Many are taking the first flight.

Toads in the Apiary.

Regarding toads, I have noticed that since I have kept bees, the increase of toads has been nearly as rapid as that of the apiary. Soon after sundown I have seen them come out from under the honey-house, and make a bee-line for the water-trough, that is always kept full for the bees. I have counted 30 or 40 of those toads, and have been suspicious of them, as they are named as enemies of bees. I have been on the watch for their depredations, but as yet I have never caught them. I have treated them as a sort of pets, and watched them play on that old trough; but what they did after I retired, is a question that I shall try this

season to solve; and if I find them eating live bees, I will fix their toadships.

Priority in Bee-Keeping.

I think that priority of location is the simple side of that question. If one State should pass such a law, it would not be constitutional, and would not stand a test. It would be like one farmer having a fine peach-orchard, and the neighbor over the line (who has none, but wishes to set out some) saying, "You must not set your trees so close to mine, as they will destroy mine, and not do well."

This is a world of competition, and we must sometimes compete with our neighbors, and the survivor will be the fittest, with the bee-keeper, as with all other pursuits.

In 1880 I had here only one colony, while our neighbor a mile or two away, owned 145. My apiary gradually gained in numbers, and at the end of 8 years, from that single colony, and the purchase of one queen, I had the largest apiary, and to-day I have a fine apiary, while that neighbor has not a single colony left; but there are legitimate causes for these changes, and it depends considerably whether a man dabbles in every new hive that is announced.

Bravo, Mich., April 6, 1889.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Apr. 23.—DesMoines County, at Burlington, Iowa. John Nau, Sec., Middletown, Iowa.

May 1, 2.—Texas State, at Greenville, Tex. G. A. Wilson, Sec., McKinney, Tex.

May 4.—Susquehanna County, at Montrose, Pa. H. M. Seeley, Sec., Harford, Pa.

May 21.—Northern Illinois, at Pecatonica, Ill. D. A. Fuller, Sec., Cherry Valley, Ills.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Bees Dying in Texas.—Jennie A. Young, Ft. Worth, Texas, on April 5, 1889, writes:

Bees in this part of the country are dying from some unknown cause. They seem to be building comb and storing honey, but it seems that the young bees come out of the hive, and are unable to fly, crawl around for a while, and then die. If any one can enlighten us on the subject, through the columns of the excellent AMERICAN BEE JOURNAL, and suggest a remedy, he will confer a lasting favor upon benighted apiarists in this, our sunny Southland.

Getting Rid of Ants, etc.—W. H. Graves, New Carlisle, Ind., on April 3, 1889, writes:

My bees wintered nicely on the summer stands, only losing one colony. My report for 1887 was a little "off;" I reported 25 or 30 per cent. loss, but my real loss was 47 colonies out of 110. I have 82 colonies now in good condition. In 1887 my expenses were something near $100, and I got about $100 worth of honey; in 1888 I had over $200 worth of honey, and my cash expenses were 10 crates at 11 cents per crate. My bees carried in their first pollen on March 26, and on the 25th I saw the first dandelion in bloom.

Those whose apiaries are troubled with ants, should try bruising green catnip on the hives where they are infested with ants. That has been my remedy for the last 12 or 15 years, and it drives them away when almost everything else fails. I have never heard of any one else using it. It seems to quiet the bees also when they are cross.

Good Prospects for White Clover.—Jas. E. Brown, Milwaukee, Wis., on April 3, 1889, says:

I never had bees in better condition on April 1, than they are this year. The prospects for white clover are good. I have 75 colonies in the cellar yet. I take my bees out of the cellar about April 15.

Weighing the Bees, etc.—Ira N. Lyman, St. Peter, Nebr., on April 4, 1889, writes:

We had the nicest winter here that I ever saw. I was brought up in Iowa and Nebraska, and have been acquainted with bees ever since I was about two or three years old. My father used to keep his bees in hollow logs and the box-hives; the windstorms would blow them over, and we set them up again. We left them on the summer stands all winter, but it was in the woods, in Johnson county, Iowa. When we got any honey it was in a little square box put on top of the hive, with a few auger-holes to make the connection; or sometimes we took off the top-board, and dug out some honey. When the movable-frames came into use, it did away with the "king-bee" and digging down from the top of the hive for honey. Then the Italian bees came at $10 per queen, the first I saw. With the Langstroth hive and the Italians, bee-keeping changed with me. I think that it is a pleasure and a profit in any common season.

My bees came out in splendid condition this spring, save one colony that had some drones when put into winter quarters; it died as I expected it would. It had about 30 pounds of honey left in in the hive. I weighed all of my bees when I took them out of the cellar on March 5, and weighed them after they had been pretty well cleaned out, and flying several days. Two colonies lost 5½ pounds, one 17½, and one 8 pounds—a little over 9 pounds per colony during the winter in the cellar. One colony that lost 17½ pounds, was very uneasy, and anxious to get out of the hive. I had them fastened in with wire-cloth in front of the hive-portico. I think that the bees winter best in a dry cellar, in a prairie country. Bees gathered pollen from willows on April 1. My bees used lots of rye flour, and are still working at it. The prairies are getting green, and everything is nice, only we get no rain, and had no snow all winter. We are wishing for rain. Small grain is nearly all sowed.

Season of 1888.—Mrs. W. T. Henley, Black Jack, Mo., on March 31, 1889, says:

I started last spring with 4 colonies in good condition, and increased them to 12, by natural swarming. I obtained a good supply of honey, but nothing like a full crop, some of it being the loveliest that I ever saw. There are not many bee-keepers around here. Honey is in fair demand, and brings good prices. I hope for a good honey year for 1889.

Section-Case.—M. Tailor, of Benton County, Iowa, writes thus:

Seeing the great good the Bee-Keepers' Union is doing, and likely to do, my conscience gives me no rest until I send you my dollar for membership, and especially as my crop last year was exceptionally good, being about $90 worth from 4 colonies, spring count. I am only an amateur, and keep a few colonies of bees on a town lot, for recreation and pleasure, and I got both, and profit too.

I will here describe a section-case, contrived by me last year. I will not call it an "invention," although I have seen nothing like it. It is very simple, and above all, cheap and efficient. If it is of any value, the bee-fraternity are welcome to it.

It consists of 4 pieces of board, and 8 common wood-screws, nothing more unless separators are wanted, then two ⅛-inch tin strips are put in crosswise between the end rows of sections, and

the separators rest on them. The case holds 28 1¾-inch sections. I use say ⅞-inch lumber, cut all pieces the exact width of the sections used, usually 4¼ inches; the length of the sides are the length of 4 sections—17 inches; add one thickness of the boards used, ⅞ inch, and from this I deduct say ⅛ inch, so as to make a close fit over the sections. The end-pieces will be 13⅛ inches long. The joints all lap one way.

In using the case, two alternate corners can be screwed together permanently, but this is optional. Place the sections together upon a level board, slip the case over them, and screw up the other two alternate corners until the sections are held firmly in place. This makes a surplus case that can be reversed, storified, or handled in any way. Of course it is necessary to use a honey-board, but a queen-excluding honey-board ought to be used with all kinds of surplus cases for comb honey.

In taking off the sections, all that is required is to unscrew the two alternate corners (or all four, if desired), and the sections will all come out in a bunch. This will save many mutilated sections, and broken cappings, especially by the novice.

I have been reading the AMERICAN BEE JOURNAL for one year, and I consider it indispensable for any one wanting to keep posted.

Wintered in Straw Hives.—Abe Hoke, Union City, Ind., on April 8, 1889, writes:

My winter report for 1888–89 is much better than I expected last fall. I put 26 colonies into winter quarters, and lost only 3, by starvation, two of which were no good last summer. One colony was one of the best that I had, but it did not have as much stores as I thought it had. It was in a round straw hive, with the frames running to the centre. I think that with plenty of stores, a colony would winter safely in it, in any climate. It is double-walled, and cost me six days' work to make it. It has 23 frames; one runs across the centre of the hive, and supports the ends of the others.

Early-Reared Queens, etc.—James Kincade, Clay Centre, Nebr., on April 5, 1889, writes:

As a general thing the bees have wintered finely. A few bee-men have lost some colonies. I have 24 colonies, all in fine condition. I examined them lately, and found all with queens, and laying. The greater part of them have not used half of their honey; but one colony needs feeding, that swarmed on Sept. 2, and would have had plenty, but was robbed. The rest of the apiary do not need anything except warm weather to bring out the bloom. They are getting pollen from ground feed, wherever they they can find it. The weather is fine most of the time. We have had a few windy days this month. My neighbor has 2 colonies, one of which he found without a queen this spring; the other had brood and eggs, and was all right until lately, when he saw what he thought to be queen-cells, so he took one frame and gave it to the colony that had no queen; now he has two young queens. The question now is, will those queens remain until there are drones to mate with? or will they have to be destroyed, and others reared, as this is rather early for drones? I have seen 2 drones flying from one of my colonies for the last week.

[You give no dates, and all we can say is, that if the queens were not fertilized within 15 or 20 days, they will be drone-layers only.—ED.]

Shipping Honey, etc.—Rev. S. Roese, Maiden Rock, Wis., writes:

We are living in an age of wonders, and this great American nation seems to take the lead in science and art, and the invention of machinery of all descriptions, with steam and electricity subjected to serve at will. The bee-keeping family all over the land has reason to feel grateful for modern improvements in bee-keeping, and the friendly ties of associations and bonds of union which have been formed to promote industry, love, harmony and good-will for each other. It is rejoicing to see what the Bee-Keepers' Union has accomplished in defending bee-keepers in their industrial rights.

I have now 80 colonies of bees, mostly Italians, and 4 colonies belonging to another man, which I keep on shares, but the weather last winter was so mild, that I had to open the bee-house door at night, to admit cool air. My bees are mostly in good condition, with the exception of 6 or 7 colonies which need some feeding. I shall make some of the "Good" candy, and place it over the frames. All weather indications seem to point to a good honey crop the coming season.

I shipped some of my comb honey to St. Paul by express, and found it all broken, so that I had to sell it at anything that I could get for it. I shipped the next lot by freight, which arrived all right. I would advise bee-keepers never to ship comb honey by express, for I see that they handle boxes and packages very roughly, without any care whatever.

Ground Corn and Oats for Pollen.—O. B. Barrows, Marshalltown, Iowa, on April 6, 1889, writes:

Before I put my bees out of the cellar in the spring, for 80 colonies I procure one-fourth of a ton of meal, by grinding corn and oats together. I turn about one dozen hive-covers bottom upward, one end higher than the other, and put two or three quarts of the meal into the upper end; when it is worked to the lower end, I reverse the end, as recommended by Dr. Miller, but always so changed as to be most exposed to the sun. When it is pretty well worked over, I add new meal.

After reading Allen Latham's article on feeding Graham flour, on page 219, I bought a sack of Graham flour, and put some in each box at one side; but my bees showed a decided preference for the corn-and-oats meal. Bees were at one time nearly done working on the meal, but since the freeze, they work on it immensely. The losses in wintering in this vicinity will not average 2 per cent.; but unless we have rain to make the clover grow, it will probably be a misfortune that they did not all die in wintering; still we are in hopes of yet seeing the silver lining to the cloud.

Experience with Bees, etc.—Geo. H. Auringer, Bonniwell's Mills, Minn., on April 6, 1889, writes:

Two years ago I bought 3 colonies of bees, one was strong, and the other two were weak. The strong colony I was afraid to touch, but the others paid no attention to me at first. I got no swarms from the weak ones, but the other swarmed three times, and the first swarm swarmed, so I secured 4 new colonies from one. I sold 2, and put 5 colonies in the cellar. I obtained about 300 pounds of honey the first season. Last spring I put the 5 colonies out on April 20, seemingly as strong as they were the fall previous, and they all went to work the same day carrying in pollen. They were in three different kinds of hives which I did not like, so I bought 14 hives that were all alike. I let the bees swarm all they would, and had from 2 to 3 swarms from each colony, and some of the first swarms swarmed again. I now have 19 strong colonies. I secured 600 pounds of honey in 1 and 2 pounds sections. I have one colony out of the cellar that is carrying pollen in now. I will put the rest out in a few days. I am well pleased with the AMERICAN BEE JOURNAL, and can heartily recommend it to all who keep bees.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

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Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

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Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	Club
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (old edition)	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of of any other papers. Send for such to the publishers of the papers you want.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Triple Lense Magnifiers have been so often called for that we have concluded to keep them in stock for our subscribers to inspect bees, insects, etc. See page 212.

Price, by mail, 80 cts.; or the BEE JOURNAL one year, and the Magnifier, for $1.50.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

Chapman Honey-Plant Seed.—The United States Commissioner of Agriculture has a quantity of the Chapman honey-plant seed for free distribution. Applicants desiring packages of the seed will be supplied while the seed lasts, in the order of their applications. The request for seed should be addressed to the United States Commissioner of Agriculture (Seed Division), Washington, D. C.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble, and at the same time help to scatter apicultural knowledge and promote the welfare of our pursuit.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.

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Honey and Beeswax Market.

HONEY.—White 1-lbs., 15@16c.; fall or dark, 12@14c. Extracted, 8c. for white. Supply large and demand light.
BEESWAX.—None in market.
Apr. 9. CLEMONS, CLOON & CO., cor 4th & Walnut.

CHICAGO.

HONEY.—Our trade is light; no large lots on hand and what there is consists chiefly of dark comb, and not salable in quantities. Choice white comb, 1-lb. sections, 16@17c.; dark grades from 10@12c. Very little demand for extracted, but prices remain at 7@9c., according to quality and package.
BEESWAX.—22c.
Mar. 25. R. A. BURNETT, 161 South Water St.

DENVER.

HONEY.—White, in 1-lb. sections, 16@18c. Extracted, 7@10c.
BEESWAX.—18@20c.
Mar. 26. J. M. CLARK & CO., 1409 Fifteenth St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 16@17c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c. If damaged and leaky, 10@12½c. Extracted, white, in barrels, 8@8½c.; ½-barrels, 8½@9c.; amber in same, 7@7½c.; in pails and tin, white, 9@9½c.; in barrels and ½-barrels, dark, 6@6½c. The demand is fair.
BEESWAX.—20@22c.
Mar. 27. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—Market is bare of comb, except some small lots of buckwheat which is selling at from 10@12c. No buckwheat extracted. Cuba and San Domingo extracted, 67@70c. per gallon.
BEESWAX.—24c.
HILDRETH BROS. & SEGELKEN,
Mar. 25. 28 & 30 W. Broadway, near Duane St.

ST. LOUIS.

HONEY.—Demand limited to local wants, which are small. We could sell some to country points in barrels and ½-barrels at 6½@7c. for extracted; in cans, 7½c.
BEESWAX.—21c. for prime.
Mar. 25. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½@7 cts.; amber, 5½@6c. Comb, white 1-lbs., 13@14c.; 2-lbs., 10@12c. Demand for extracted is good; for comb, limited. Prospects are not as good for honey as in 1888.
BEESWAX.—Scarce, at 18@22c.
SCHACHT, LEMCKE & STEINER,
Mar. 15. 16 & 18 Drumm St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 18@20c.; best 2-lbs., 17@18c. Extracted, 8@9c.
Sales have been checked a little on account of maple sugar and syrup being so plentiful. Quantity of honey in the market is sure to be entirely closed out before new crop comes.
Apr. 8. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 15@16c. Sales slow. Extracted, 8@9c. Demand small, prices lower.
BEESWAX.—22@23c.
Mar. 22. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 15@16c.; 2-lbs., 12@31c. Good dark 1-lbs., 12@13c.; 2-lbs., 10@11c.
Mar. 21. S. T. FISH & CO., 189 S. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@15c. Demand is slow, and prices low.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Mar. 21. C. F. MUTH & SON, Freeman & Central Av.

Standard Atlas of the World.

To any one sending us, direct to this office, **Five NEW Subscribers** for one year, with $5.00 (renewals not to count), we will *present* this beautiful Atlas, by mail, postpaid:

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	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Advertisements.

WANTED—You to send for my illustrated price-list of Apiarian Supplies for 1889; also **five cents** for my pamphlet, **"How I Produce Comb Honey."**
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Mention the American Bee Journal.

ITALIAN BEES, QUEENS, and EGGS from Light Brahma and Wyandotte Poultry One Untested Queen, $1; three for $2. Eggs, $2 for 13. Price-List Free.
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SURE to send for our Circular before buying. ITALIAN BEES by the lb.; 2 and 3 frame Nuclei, Queens, Sections, Foundation, &c. Untested Queens in May, $1.00; in June, 75c.; 3 for $2.00. Tested Queens, $1.25 to $3.00, in their season; 2 and 3 frame Nuclei, $2.00 to $4.00, with Queens. Address,
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British Bee Journal

AND BEE-KEEPERS' ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the very best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley Herts, England.
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JOHN W. BROWN, Editor and Publisher,
182 & 184 S. Clark Street, Chicago, Illinois.
Mention the American Bee Journal.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. April 27, 1889. No. 17.

EDITORIAL BUZZINGS.

Morn's rosy light gleams everywhere
To all the air,
To perfume Lent;
And every flower in beauty dressed,
Wears jeweled crest,
From heaven sent.

The milk-white bloom of cherry-trees
Hath charmed the bees
From Winter's cell;
And one can hear soft whisperings,
And whirr of wings,
And songs as well.

—*Seed Time and Harvest.*

The Rev. Dr. M. Mahin has been appointed to the pastorate of Grace Methodist Episcopal Church in Richmond, Ind., and his address will hereafter be at Richmond, Wayne county, Ind.

The British Bee Journal for April 4 contains a good likeness of Mr. Charles Nash Abbott, its former editor, together with a biographical sketch of his life and work in the apicultural line.

A Poultry Department is to be added to the *Canadian Bee Journal* next week; the form will be changed, pages enlarged, and cover omitted. This will be the second bee-paper in America having added the poultry feature. We wish it success.

We Deeply Sympathize with Capt. and Mrs. J. E. Hetherington, of Cherry Valley, N. Y., in their affliction—having lost their youngest son, John Edwin, on the 3d inst. He was 4¼ years of age, and was a bright and intelligent boy, giving promise of becoming an energetic and useful man. It is a sad blow to both mother and father, for Johnny was the "sunshine" of that home. The AMERICAN BEE JOURNAL now offers its condolence to both.

Transferring Bees, etc.—I. E. Myers, Mahtomedi, Minn., on March 27, 1889, writes:

I am beginning bee-culture with one colony, that I found in the woods last fall. I have them in their "log-cabin" yet, but I want to change them into a Langstroth hive. When I was a boy, yet at home, my father would transfer the old colony into a new hive once in about 4 years. We used water to drive them from one to the other; but my "log cabin" is so long that the expense of building a tub around it to hold the water would cost more than the colony is worth, although the bees are numerous and apparently doing finely.

I have made a feeder for them, so that I can feed them and not compel them to come out after the food. It is fastened to the log with screw-nails, and a hole bored through the feeder and the log to give them access to the honey. By the sliding of a slat of wood between the two I can close the passage while I clean out the feeder-trough. The feeder works like a charm. It is amusing to see the bees take in the rye-flour.

I send you some of my bees, to learn what kind they are. Some call them Italians, and others hybrids; but I do not see any difference from those that my father had 40 years ago.

The bees did not come to hand—they were probably lost in the mails. Mr. Myers asks how to transfer the bees to frame hives. As several have asked to have Mr. Heddon's plan of transferring bees reproduced, we give it here. He says:

About swarming time I take one of my Langstroth hives containing 8 frames of foundation, and with smoker in hand, I approach the colony to be transferred. First, I drive the old queen and a majority of the bees into my hiving-box. I then remove the old hive a few feet backward, reversing the entrance, placing the new one in its place, and run in the forced swarm. In two days I find eight new straight combs with every cell worker, and containing a good start of brood. Twenty-one days after the transfer, I drive the old hive *clean* of all its bees, uniting them with the former drive, and put on the boxes, if they are not already on. If there is any nectar in the flowers, the colony will show you comb honey. About the queens: I usually kill the forced queen as the bees run in.

I run them together as I would one colony in two parts. Now to the old beeless hive; of course there is no brood left, unless a little drone-brood, and we have before us some combs for wax, for more foundation, and some first-class kindling wood.

If you have no method by which you can use a full hive of frames, of full sheets of foundation, running a full swarm into them at once, by all means procure it without delay.

We hope this will be sufficiently "detailed" to oblige our correspondent. It should be remembered that every beginner ought to have a good "book" for convenient reference at all times.

Catalogues for 1889 are on our desk from—

S. W. Morrison, M. D., Oxford, Pa.—4 pages—Carniolan Queens.

G. K. Hubbard, Fort Wayne, Ind—16 pages—Hives and Bee-Keepers' Supplies.

C. Mathews, Imlay City, Mich.—4 pages—Bee-Keepers' Supplies.

J. B. Mason & Sons, Mechanic Falls, Me.—20 pages—Bee-Keepers' Supplies.

E. L. Goold & Co., Brantford, Ont.—20 pages—Bee-Keepers' Supplies, etc.

Mineral Wax.—A. E. Maley, Auburn, Neb., sends us the following item from the New York *Mail and Express*, and wants to know if it is true:

A car-load of a peculiar mineral arrived in this city a few days ago. It was ozocerite, or mineral wax, and it came from Utah. Until recently this substance has not been known to exist in any quantity except in Moldavia and in Galicia, Austria. Three years ago, however, a deposit of the queer substance was discovered on the line of the Denver & Rio Grande railroad, about 114 miles east of Salt Lake City. The mine is known to cover at least 150 acres, and over 1,000 tons per year can now be produced.

Ozocerite resembles crude beeswax in appearance, and can be used for nearly all purposes for which wax is employed. It is now largely used in the manufacture of waxed paper. It enters into the composition of several brands of shoe polish. Mixed with parafline, it produces an excellent grade of candles. One of the largest fields for the new material is the insulation of electric wires. It is claimed that ozocerite is preferable to any substance previously employed for this purpose. As the mineral wax comes out of the ground in condition to be used without refining, unless it is required for some special purpose, it is much cheaper than the product of the honey bee, and it is evidently destined to be extensively used in the future.

We have heard much about the mineral wax product, in general, but have nothing to offer about the "Extensive deposit of ozocerite recently found in Utah." Perhaps some of the wide-awake bee-keepers of that region can tell our readers something about it.

Several Copies of a circular sent from Chicago, signed by F. Andrews, have been received at this office. It offers a book on the "Secrets of Bee-Keeping" for 15 cents, and a model of a hive for $3.00. We have made four trips to the address given, to buy a book, but can find no one there. A woman from another room in the same building was found, who said that Andrews was there only a few minutes each day, and that he was going to California in May. It is useless for us to caution any one, for our readers do not send "a nickel and a dime" for any "secrets" of bee-keeping. They know better. It is the "novices" he is after. The circulars seem to have been sent to post-masters, and by them distributed into the "boxes," to catch the unwary, and obtain many $3.00, and "nickles and dimes," for Mr. Andrews to go on "a trip around the world."

The May number of *Frank Leslie's Popular Monthly*, crowded as usual with attractive pictures and good reading, opens with a well illustrated article by George C. Hurlbut, on "The Paris Exposition and its Significance," which is of special interest and timeliness, closely preceding, as it does, the opening of the great French Universal Exposition in commemoration of the one hundredth anniversary of the fall of the Bastille. Its many attractions, in the form of stories, sketches, essays, poems, scientific articles, art illustrations, make up a model number of this popular magazine.

MR. DOOLITTLE'S NEW BOOK.

—:o:—

"Scientific Queen-Rearing, as Practically Applied" is its title, and it contains 176 pages. It is nicely printed on good paper, and contains 20 illustrations besides a portrait of the author. The latter is very good, and we reproduce it here for the benefit of our readers.

Yours Truly
G. M. Doolittle

The first Chapter is devoted to the author's first interest in bee-keeping. The second Chapter dwells upon the importance of good Queens. Chapter III and VI describe Nature's way of rearing Queens. The fifth Chapter details the old methods, pointing out their imperfections. Chapter VI enumerates later methods, as steps to the "new way," which fill the next 20 pages with very interesting details.

"Getting the Bees off the Cells," is the subject matter of Chapter VIII; followed by chapters devoted to "What to do with Queen-Cells"—"The Queen-Cell Protectors"—"How to Form Nuclei"—"How to Multiply Nuclei"—and the methods used by the author to have "Queens Fertilized in the Same Hive where there is a Laying Queen."

This is followed by a chapter on Bee-Feeders and Bee-Feeding, and then the author deals with the all-important matters of "Securing Good Drones," and the "Introduction of Queens," in the following language:

SECURING GOOD DRONES.

It is my belief that we, as apiarists of the Nineteenth Century, do not look to the high qualities of our drones as much as we ought, or as much as we do to these qualities in our Queens. To me, it seems that the matter of good drones is of greater value, if possible, than is that of good Queens; for I believe that the father has as much, or more, to do with the impress left on the offspring, than does the mother. We select our Queens with great care, but leave them to mate with drones of a promiscuous rearing from all of the colonies in our bee-yard, as well as with the "scrubs" reared by our neighbors, or from such swarms as may be in the woods near us. Now this ought not so to be; for if we would have the best of bees, our Queens must mate with the best of drones.

To this end, it seemed to me that one of the most desirable things possible about Queen-Rearing, would be the fertilizing of Queens in confinement. For this reason I have tried every plan given to the public, for the accomplishment of this object," but, as I said in a previous chapter, I have so far nothing to record but failures. I would willingly give $500 for a plan by which I could mate the Queens that I rear, to selected drones as I wish, and do this with the same ease and assurance that our other work about the apiary is carried on.

As we cannot as yet, do this, I find that the next best thing that I can do, is to set apart two or three of my very best Queens for drone-rearing, causing them, as far as may be, to rear all of the drones in the apiary. I do this by giving these colonies a large amount of drone-comb, and keeping up their strength, if need be, by giving them worker-brood from other colonies.

The other colonies are largely kept from rearing drones, by allowing only worker-combs in their hives, and by giving them a comb of drone-brood occasionally from one of the colonies rearing drones, just when they want drones the most; for if this is not done, they will have drones anyway, even if they have to tear down worker-comb to build such as is needed to rear them in. As soon as the major part of the drones from this comb have hatched, it is taken away, before the inferior drone-brood (if any is placed in the comb) has time to mature. In this way I get all the drones reared from my best Queens, and only fail in not being able to sort out the weak and feeble ones, or, in not being able to select the most robust drones for the Queens.

To be sure, we can use the drone-traps now before the public, to keep the drones of the poorer colonies from flying; but to me, this causes more work and more disturbance with the bees, than the plan outlined.

Again, the rearing of drones, causes a great consumption of honey, and it seems foolish to be wasting honey in rearing drones, only for the sake of killing them afterward.

Beside knowing how to rear mostly good drones, we want to know how to get them early in the spring. This is something not often spoken of, but it is one of the things which must be done by the Queen-Rearer who would please his customers. To do this, I place drone-comb in the center of the hives having my drone-rearing Queens, doing this in the fall, so that whenever the bees have any desire for drones, such comb will be handy for the Queen.

If these colonies are not very strong in the spring, I make them so, by giving hatching brood from other colonies, till they are running over with bees, while in addition to this, I often insert a drone-comb full of honey, right in the center of the brood-nest; for in the removing of a part of all this honey, the bees coax the Queen to lay in this drone-comb, to a degree that otherwise could not be attained. In this way I usually succeed in getting drones from one to three weeks earlier than I otherwise would.

To keep drones late in the fall, I make a strong colony queenless, at the close of the honey-harvest, and in this colony I put all of the drone-brood that I can find in my drone-rearing colonies at this time. As much of this brood is in the egg and larval form, when given to the queenless colony, I have them hatching after all the other drones are killed off, for queenless colonies which are strong, are very choice of drone-brood. In this way I generally have a hive full of nice drones, as late as I desire to rear Queens, keeping them frequently into October.

As soon as I am through with such drones, I introduce a Queen to the colony, when the bees will destroy them at once, if feeding is withheld. I always feed a colony keeping drones when honey is not coming in, for they need much food to make them fly freely, and that is what we want them to do, on every warm day at that season of the year.

One other item that I wish to notice at some length, before closing this chapter on drones, is this: From the fact that worker bees can lay eggs that will hatch drones, and that Virgin Queens can also lay eggs which will also produce drones, the theory has obtained very largely among bee-keepers, that the drones from a fertile Queen must of necessity be of the same blood, as they would have been had this Queen produced drones before she was fertilized. In nearly every book written on bees, that I have read, where this subject is touched upon, we find words to the effect that, "a pure Queen, however mated, must produce a pure drone of her own variety." Mr. Alley's "Queen-Rearing" is an exception to this, I am happy to note.

Now I am not prepared to say how, nor wherein, the drones are changed by the mating of the Queen; but this I do know, that drones *are* contaminated, to a certain extent, by the mating of a Queen of one blood, with a drone of another blood. Any one can prove this, for in four generations, by mating the Queen each time to these pure (?) drones, a bee can be produced which no man can tell from a hybrid. That this contamination does not show in the first cross, is the reason, I believe, that the theory has been accepted, by nearly all, as the truth.

To illustrate: Take a pure black Queen, and after she has mated with a fine, yellow Italian drone, let her rear all of the drones produced in an apiary containing only black bees. Of course, the drones from this Queen will all be black to look at, the same as they would have been had she mated with a drone of the same blood as herself. Now rear Queens in this apiary, from any of the pure black mothers in it, and these young Queens will mate with the drones from this mismated Queen. These young Queens will apparently produce all black workers and drones, the same as they would have done had these drones come from a pure black mother, mated with a pure black drone; but when we rear Queens from these young mothers, now and then one will show a little yellow, which would not have been seen, had not the drones from this mismated Queen been the least bit contaminated, To detect any slight contamination of blood in our bees, we must always look to the Queen progeny, for the Queen is the typical bee of the hive; hence they will show an impurity where the workers and drones would not.

Now, take one of these young Virgin Queens showing a little yellow, and have her mated with a pure yellow Italian drone—the same as was done with the first Queen. From this one rear all of your drones again, while you rear Queens from her mother, which young Queens would be sisters to the one now producing drones. Having one of these last young Queens fertilized by the desired drones, next rear Queens from her, and you will find that some of these Queens will show quite a little yellow on them; yet so far the drones and workers show little if any difference.

Take one of the yellowest Queens from this last lot, and have her mated with a yellow drone again, going over the same process of mating as before, and you will get Queens in this third generation, which will (many of them) be quite yellow; while the workers and drones will show "yellow blood" about them, by occasional "splotches" of that color.

Now follow out the same line of breeding once more, and you will get both workers and drones, which any Queen-breeder in the land will call hybrids—calling them rightly so, too. These hybrids could not possibly come about by this way of breeding, only as drones from a mismated Queen are contaminated; for so far as we have used no drones except those which were pure black, according to the parthenogenesis theory, yet we have a hybrid bee as the result.

Worker bees and drones do not show a little variation of purity, as much as does the Queen, hence if we would know of the stock which we have, we must rear Queens from them. Failing to do this, we often decide that we have pure drones for breeding purposes, because these same drones look all right.

If I have made this matter plain, and I think that I have, it will be seen how much value it would be to the scientific breeder of Queens, if he could select just the drone he wanted, and then have a valuable Virgin Queen mated with that drone. In this way we could accomplish as much in securing the "coming bee," in two years, as we now accomplish in a life-time.

Let no one be longer deceived about *pure drones* from a mismated Queen; for if such drones are allowed to fly in your yard, you cannot expect any satisfactory degree of purity from Queens reared therein. I have been forced to this conclusion by many carefully-conducted experiments as already described.

THE INTRODUCTION OF QUEENS.

Perhaps there is no one subject connected with bee-keeping that has received so much notice in our bee-papers and elsewhere, as has the introduction of Queens; yet all who have read the methods and discussions given, must have plainly seen that success does not always attend the efforts in this direction. On the contrary, many losses have been reported, and these losses are not confined to the inexperienced altogether, for we often hear of our most practical apiarists occasionally losing a Queen.

The reason for so many losses, it seems to me, arises from the fact that bee-keepers in general do not understand that a discrimination should be made between Queens taken from one hive and placed in another, and those which have come long distances by mail or express. In introducing Queens, it should always be borne in mind that a Queen taken from one hive in the apiary, and introducing into another, does not require one-half the care that must be given to a Queen coming from a distance. The reason for this seems to be, that a Queen taken from a hive in the same yard, is still heavy with eggs, and will not run around, provoking the bees to chase her, as will a Queen after having had a long journey.

In introducing all ordinary Queens coming from my own apiary, I generally adopt one of the two following plans: The first is, to go to a nucleus or other hive from which I wish to get a Queen, and when she is found, I take the frame of brood she is on, bees and all, together with another frame from the same hive, carrying them to the hive from which I am to take the superannuated Queen, when they are left with the Queen between the two combs, while I secure the poor Queen and dispose of her; then I take out two frames from this hive, and place the two frames, brought from the nucleus, in their places, and close the hive. I now shake off the bees from the two frames in front of their own hive, carrying the combs to the nucleus; or if the nucleus will be too weak, I carry bees and all to it.

The object in taking the two frames with the Queen, is so that while waiting outside of the hive, she and the most of the bees may cluster between them, thus becoming quiet. When placed in the hive, both are put in together, thus leaving the Queen quiet among her own bees. In this way I do not lose one Queen out of fifty, and as the operation is so simple, and the Queen so quickly installed, the advantages more than over-balance so small a loss.

The second plan, is to go to any nucleus and get the young Queen in a round wire-cloth cage (such as all bee-keepers have in their apiaries) before looking for the Queen to be superseded. After she is in the cage, I place her in my pocket, and close the hive that I took her from, and

look for the Queen that I wish to remove; having found her, she is killed or otherwise taken care of, and this hive is also closed. I next blow in at the entrance enough smoke to alarm the whole colony, pounding with my fist on top of the hive until I hear a loud roaring inside, which shows that the bees are filling themselves with honey. I now let the Queen that I have in the cage, run in at the entrance, smoking her as she goes in, while I still keep pounding on the hive. In doing this, nothing but wood-smoke should be used, for if tobacco-smoke were used, many of the bees would be suffocated.

If this is done when there is danger of robbing, I wait till just at night, about the operation. If more convenient, the Queen can be taken out of the hive at any time during the day, and the operation of putting in the new Queen done just at night. Some seem to think that the operation will be more successful if done in this way, but so far I fail to see any difference as to results. The idea is to cause the bees to fill themselves with honey, at the same time smoking them so that the Queen and bees smell alike. This plan is as free from loss as the other, still it is not quite so simple as the first—I only adopt it where it is not handy to use the former.

Where any colony has been queenless from three to five days, a Queen can generally be successfully introduced by dropping her in honey, and rolling her over in the same, till she is thoroughly daubed with it, when the cover to the hive is lifted, and the Queen dropped from a spoon right down among the bees. This is equally successful with the others, but I do not like the plan, on account of having to keep the colony queenless so long. Even a Queen from a distance, can generally be safely introduced by this plan.

To introduce a Queen that has come to me from abroad, or one which I consider of more than ordinary value from my own apiary, I proceed as follows: First, I take the cage containg the Queen and her escort of bees, to the little room where I handle queen-cells, and open the cage before the window, so that if the Queen takes wing, she will not be lost. I then catch the Queen and clip her wings (as given in the chapter on that subject), when she is placed in a round, wire-cloth cage; but I allow none of her escort to go with her, as I consider such bees when left with a Queen one of the prime causes of the many losses which occur to the purchaser of Queens.

Having the Queen's wings clipped, and in the cage, I next take a piece of wire-cloth, containing 14 or 16 meshes to the inch, and cut it four-and-one-half by eight-and-one-half inches in size. Now cut a piece three-fourths of any inch square out of each corner, and bend the four sides at right angles, so as to make a box, as it were, three inches wide by seven inches long, and three-fourths of an inch deep. Next, unravel the edges down one-half way, so that the points can be pressed into the combs, and if the corners do not stay together as they should, they can be sowed together with one of the wires which were unraveled [Fig.5, page 50].

Having the cage ready, and the Queen to be introduced, in your pocket, proceed to look for the Queen to be replaced, and after removing her, examine the combs until you find one from which the bees are just hatching, or where you can see them gnawing at the cappings of the cells, which comb should also have some honey along the top-bar of the frame above the hatching brood.

Now shake and brush every bee off this comb, and place the Queen that you have in your pocket on it, by putting the open end of the cage near the comb over some cells of unsealed honey, when she will go to the comb, and as soon as she comes to the honey, she will begin eating. While she is doing this, put the large cage over her and the hatching brood, as you wish, taking all of the time that is needed, for as long as she continues eating, she will not go away, nor be disturbed by any of your motions.

Having honey in the cage is necessary, for the bees outside of the cage cannot be depended upon to feed a Queen when she is being introduced. Some claim that if the cage is made of wire-cloth having large meshes, the bees will feed them; but after losing many Queens by depending upon the bees to care for them, I say always provision your introducing-cage in some way, so that the Queen is not dependent upon the bees for her food while in the cage.

Even when keeping Queens in the queen-nursery, where placed in queenless colonies, I find that the bees often refuse to feed them; so I now provision all cages of all kinds, notwithstanding the claim put forth by some of our best bee-keepers, that several caged fertile Queens will be fed by a colony having a laying Queen, if they are put between the combs in a hive having such, for safe keeping. Finding a whole queen-nursery full of dead Queens, after trusting them to the care of a colony of bees having a laying Queen, is generally more convincing than many words given in support of an untruthful theory.

But to return: Fit the cage so that it comes over three or four square inches of honey, and as much of the hatching brood as possible; for these hatching bees have much to do with the speedy introduction of the Queen. Having all fixed, leaved the hive from 12 to 48 hours, according as your other work will allow you, when the hive is to be opened, and the cage examined.

If all has worked as it usually does, the bees will be found spread out evenly over the cage, the same as they are on any of the rest of the combs. When such is the case, the cage is to be carefully lifted from over the Queen, letting her and the young bees that have hatched during her confinement, go where they please, keeping watch all the while to see that the bees treat her kindly; if they do this (as they will, nineteen times out of twenty), the comb is to be placed in the hive; if not, she is caged again. In from one-half to one hour after liberating her, look at the Queen again, and if she is now treated as their old Queen was before her removal, the hive is closed, and she is considered safely introduced.

If, on the contrary, the bees are found clustered thickly on the cage, biting the wire-cloth and showing signs of anger, the frame is to be placed back in the hive and left till the next day, when, if they still show the same symptoms, you must wait until they are scattered over the cage, as spoken of at first, before letting her out.

I often release a Queen in 12 hours, and find that she is all right; and I rarely have to wait to let her out, more than 24 hours. Still, in extreme cases, I have been obliged to keep them caged nearly or quite ten days.

Do not be afraid of the Queen dying in the cage; for if she is placed over honey, as I have advised, she will live a month, and there is no need of losing any Queen if there is not too much haste used, in letting her out. Even then, there should be no danger, if the apiarist is on hand to release the Queen from the bees which cluster (or ball) her, as they always do a Queen for sometime before they kill her. Such clustered Queens can easily be relcased, by smoking the bees till they free her.

In liberating a Queen from a "ball" of infuriated bees, she is liable to take wing and fly away, thus losing her in that way. To guard against this, I either clip her wings before trying to introduce her, or take the "ball" of bees into a room while smoking them apart. Again, there is some danger that after the Queen is free, a bee from the cluster will sting her, if this bee gets to the Queen singly; and for this reason, I always secure the Queen in a wire-cloth cage as soon as the last bee has let go of her.

If the bees of any hive have once clustered a Queen, I find that it is very hard work to get them to accept the same one afterward; for this reason, I generally take a Queen that has been clustered, to some other hive and introduce

her there, giving the infuriated colony another Queen or a queen-cell.

However, not one Queen in one hundred is treated in this way when using the above plan, for, as a rule, I find that the young bees that have hatched in the cage with her, have accepted this Queen as their mother; thus the news is conveyed from them to the rest of the bees in the hive, so that she is fed by "all hands," which causes her to keep the cells enclosed by the cage, from which the young bees have hatched, well supplied with eggs.

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The advantage that this plan has over any other where the Queen is to be caged in the hive, is in the young bees hatching out in the cage with the Queen; and as they have known no other mother, they accept her at once, thus forming an escort which the older bees, sooner or later, are obliged to accept, as being a part and pareel of the colony.

By any of the above plans, there is very little danger of losing a Queen, yet none of them are absolutely safe; nor would I use them were I to receive a very valuable Queen, say one worth $10, for with such Queens we do not wish to take a particle of risk.

After studying on the method of forming nuclei by the "caged bees" plan, as I gave in the chapter on that subject, I saw that by using that process, I had an absolutely safe plan of introducing a laying Queen, even were she worth $100. I have used this plan with all the valuable Queens for several years, and have not lost a single Queen, nor do I believe that I ever shall lose one by it, unless she should happen to fly away in putting her in the box with the bees; nor will she do this, as long as I clip all of my Queens' wings.

My usual method of using this plan, is to get bees enough from the upper stories of different hives to form a good, strong colony, doing it just the same as I gave in the chapter on forming nuclei, only I take the bees out of four or five different hives, and off from 10 to 15 combs, according to the strength that I want the colony. After having the bees in the box, they are treated just the same as there described, giving them the valuable Queen, in the same way that the Virgin Queen was given.

In hiving them, give as many empty combs, or combs of honey, as you choose, but do not give any more brood at this time than you did to the nucleus; for if more brood is given, the bees sometimes will swarm out with the Queen in a few days, where made so strong, the same as a natural swarm. If you desire to give brood, do it by giving a frame or two at one time every few days, after waiting four or five days from the time of hiving, before giving the first frames.

If you do not have bees in upper stories having a queen-excluder under them, then go to two or three colonies in ordinary hives, look for the Queens, and as fast as they are found, put the frames that they are on, outside of the hives. Now smoke and jar the bees on two or three frames from each hive, till they fill themselves with honey, when you are to shake as many bees down through the funnel into the box, as you want in your colony, and proceed as before.

If you desire to introduce the Queen to a certain colony, (the same as we have been doing by the other plans given), kill or take away the old Queen, and cause the bees to fill themselves with honey, the same as in the last instance; when all the bees that you can get, are to be shaken off the combs through the funnel into the box.

Having all of the bees in the box that you can possibly obtain, treat them the same as before, until you are ready to hive them. After they are placed in the cellar or other cool place, take all of the combs having brood in them, and give them to the other colonies, leaving one or two frames of honey in the hive, to hold till night, the bees which you did not succeed in getting into the box, and those returning from the fields. These combs should be put in the centre of the hive, so that when night comes the bees will be mostly clustered on them, instead of about the side of the hive, as would be the case if they were left next to one side of the hive. When you hive the bees having the new Queen with them, take these two combs with the bees out of the hive, putting in other combs as before, using only one having a little brood in it, and that taken from another hive, so that they are not given their own brood.

Having all prepared, proceed to hive the bees as was done with the nucleus; or, if preferred, the bees can be shaken down at the entrance, for, as this is their old home, they can go nowhere else, even should they try to do so. After the larger part of the bees are in the hive, shake the bees off from the two combs, and let them run in with the others. In five days, commence to give the brood back again, and keep on doing so occasionally until all is back in the hive, as it was before.

The above I believe to be an infallible plan for introducing Queens, and well pays for the time and trouble, when we have a very valuable Queen coming from a distance, which we would not lose on any account; yet it will hardly pay to spend so much time on ordinary Queens, except by way of experiment, or when desiring to make new colonies in addition to introducing Queens. Where a Queen comes to me very unexpectedly, I always use this plan, taking the bees from an upper story or two, thus forming a small colony with the Queen, which colony is built up later on, by giving frames of hatching brood. Using it in this way, it always gives me the assurance of success, in any case of emergency.

He then gives directions for introducing "Virgin Queens"—and shows how to "Keep a Record of the Cells, Queens," etc. The last four chapters are devoted to "Clipping the Queen's Wings"—"Shipping, Queen-Cages, Bee-Candy," etc.—"The Injury done to Queens in Shipping"—"Quality of Bees and Color of Queens"—and advising the rearing of Queens for the pleasure as well as profit it gives. The book is intensely interesting, and ends with these paragraphs:

Another point right here (and one which I consider worth much more to any one, than the price of this book; even though he may keep only two colonies of bees), and that is: If you desire to supersede any Queen in your yard, on account of her being too old to be of farther use; or if she is of another race of bees from what you desire; all you have to do is to put on an upper story, with a queen-excluding honey-board under it, place a frame of brood with a queen-cell upon it, in this upper story, and after the young Queen has hatched, withdraw the queen-excluder, and your old Queen is superseded without your even having to find her, or having the least bit of time wasted to the colony.

In fact, the possibilities which this perforated-metal may bring, have only just begun to loom up before us, so that what the future may bring forth in this matter can hardly be conceived by any. Truly, our pursuit is one of the most fascinating of any of those that are engaged in by man; and I am thankful to Him who ruleth all things, that I have a part and a lot in this matter.

That all who read this book may try to carry out the thoughts herein advanced, to still greater perfection, and strive in the future to rear only Queens of superior value, so that we may soon be able to say,

"THE COMING BEE IS HERE,"

is the best wish of the author.

The book is now ready, and will be mailed to any address for $1.00. All orders should be sent direct to this office.

CORRESPONDENCE.

NECTAR.

The Gathering of Honey and Pollen by Bees.

Written for the American Bee Journal

BY CHAS. DADANT.

In answer to the wishes of Prof. Cook, expressed in his article on page 217, I give here some remarks on the above subject.

Bees are attracted to the nectar by its odor, mainly. Then, after having unloaded their honey-sacs in the hives, they use their eyes to find more quickly and more surely their way back to the spot where they had completed their last load, and continue, on the same kind of flowers, as long as they find something in them to take.

I have noticed the bees of a colony gathering a kind of honey, while the bees of another colony, placed near by, gathered at the same time, honey different in color and savor.

I have seen Italian bees, exclusively, working on red clover; while black bees, exclusively so, worked on buckwheat.

Some of our colonies had dark honey-dew in their hives, while others had only white-clover honey; some had fruit-juice, while others had dark honey from the fall blossoms.

As the same kinds of some flowers vary a little, bees are soon accustomed to visit their diversely-tinted varieties. For instance, a bee will go from a purely-white head of clover to another which is rose-colored; for there are hardly two plants of white clover whose flowers have exactly the same tint.

Having watched bees working on a patch of differently-colored blue-bottles, I saw one bee stick to the white variety and pass by the other colors without paying any attention to them; while another bee visited, one after another, the white, the blue, the purple, etc. I noticed the same when watching bees on the asters, the knot-weeds, etc.

There is, consequently, no wonder to see bees visiting several kinds of apple-trees during the same trip. This reminds me of something unusual that I noticed in France long ago. There was an apple-tree loaded with apples, very similar to the kind known here as "Bellflower." Some of the apples, instead of being entirely white, had ribs, like muskmelons, colored in gray. Not far from it was another tree of a variety known in France as "Gray Reinette." No doubt the bees of an apiary placed in the same orchard had brought the pollen of the gray apple to the flowers of the white, and the fecundation had not remained confined to the seed alone, but had extended through the pulp to the part of the skin corresponding to the heterogeneously-fecundated kernel.

When the crop of honey is scarce, bees visit all kinds of nectar-yielding flowers, passing from one to another, without seeming to mind the difference. But we do not think that they act the same when they are in quest of pollen, if we notice the regular color of the lumps that they bring to the hives.

How the Toads Eat.

In reply to Mr. Hovis in regard to toads eating bees, on page 216, I would say that, although the toad eats small insects, its mouth is very large. To get its prey it does not act like the ant-eaters, whose heads are elongated, and which thrust their tongues—that are coated with a viscid saliva—among the ants, and retract them in their narrow mouths.

As soon as an insect is within the reach of the toad, its tongue is thrown out by a kind of springing motion, the back part of it forward, and returned as quick as lightning; as the tongue is coated with a viscid substance, the lightest contact suffices. This motion is so quick that it is about impossible to notice it, except by the swift opening of the mouth, and the smack which is heard when the tongue jumps back and the mouth shuts up.

Hamilton, Ills.

IN COUNCIL.

Report of the N. E. Ohio, N. Pa. and S. W. N. Y. Convention.

The Northeastern Ohio, Northern Pennsylvania, and Southwestern New York Beekeeper's Association met at Franklin, Pa., on January 30, 1889, at 2 p.m., with President D. H. Lefever in the chair.

Secretary C. H. Coon, of New Lyme, O., called the roll, and the treasurer, George Spitler, of Mosiertown, Pa., read his report after the secretary's report was read.

The President's address, in a humorous and semi-serious vein, came next. H. M. Erwin, editor of the Franklin *News*, made the address of welcome in behalf of the executive committee and the citizens of Franklin. The address was impromptu, and those who listened to it were highly pleased. The response was by M. E. Mason, of Andover, O.

Some time was given for the enrollment of names and paying of annual dues, after which the first question on the programme was discussed as follows, viz.:

"The Best Method of Disposing of First Swarms, when Increase is not Desired."

Mr. Mason said that as his whole aim was to get the most honey possible, he had tried to find some method by which increase could be prevented as much as possible; for bees will swarm. By his method, bees are allowed to swarm naturally, yet with little increase of colonies. They first swarm in an empty hive, and he hives them in the usual manner on from six to eight frames filled with comb, or foundation, using division-boards to contract the brood-chamber. Then put the next swarm into the hive from which the first swarm issued. The third swarm is put into the hive from which the second swarm issued, and so on. By this method he had large colonies—a thing so desirable and necessary to secure comb honey, and yet the bees' propensity to swarm is satisfied.

Mr. Reynolds hived his swarms in hives from which swarms issued the previous day, or in hives whose colonies are queenless; puts sections for surplus honey in the hive in about 12 hours, if he has lots of comb in the brood-nest; if not, he waits a day or two. He said that he had no trouble from bees swarming out, unless a swarm had issued from a hive three or four days; in such cases he would destroy the queen-cells previous to putting in the swarms.

Mr. Pettis, of Lake, Pa., related the experience of a neighbor who made it pay to have increase of swarms; he sold his swarms at from $3 to $7 each. If he had too many he sometimes made a sale, and generally secured good prices.

D. W. Burnett, New Vernon, Pa., has had no reason to prevent increase of swarms, for he has ready sale for his bees at $6 a colony, in a simple body of the hive, which he thinks pays him for all trouble.

Consumption of Winter Stores.

A member said that he could see but little difference in out-door or cellar-wintering in the consumption of stores.

Mr. Sutton thought that out-door wintering was best, because the bees have opportunity for cleansing flights—a thing very desirable. They will also breed sooner.

Mr. Reynolds had at one time 12 colonies—six of them he put into a cellar (a dry one), and six were packed in straw on the summer stands. Those out-doors came through all right, and built up rapidly in the spring; those in the cellar came through the winter, but he lost all of them in the spring by dwindling.

C. H. Coon packs part of his bees out-doors, and part in the cellar. Those out-doors are quiet, while those in the cellar seemed to be very uneasy the past winter; there are many of them coming out of the hives; the hives are damp, though the cellar is dry. He has oil-cloth on top of the frames. His cellar was well ventilated. He loses his bees after putting them out in the spring. Last spring he kept the bees in the cellar very late, and they did well.

Mr. Mason said that the average cellar was not the right place to winter bees. The temperature ought to be kept at 40° to 45°. He does not believe it advisable to carry bees out of the cellar to give them a cleansing flight. He has always been more successful by out-door wintering.

Mr. Lefever thinks that the want of proper stores is the cause of more failures than any other method of wintering. He has had much trouble from stores gathered at cider-mills by the bees. He related how a friend put outside combs to the inside or center of the hives, and the center combs to the outside of the hives, with good results. Another neighbor had cut a bee-tree, and, the combs being badly smashed,

the honey was fed to the bees, and all died. The See brothers, of Geneva, he said, had good results in wintering bees on fire-weed honey.

Mr. Coon spoke of disastrous results from too much extracting, and would not extract any honey from the brood-nest—in fact he did not use the extractor at all, only in extracting for others, except to extract from unfilled sections. He extracted for a neighbor who laid his loss of bees to cellar-wintering; but he believed it to be caused from taking all the good honey from the bees. He would advise saving the good combs for wintering.

Mr. McLean and Mr. Sutton found buckwheat honey very good for wintering bees.

An expression was taken as to which was best for wintering, an extra large colony, or a medium one; the vote was unanimous in favor of the medium colony for good results in wintering.

Mr. Sutton said that feeding broken combs to bees would start brood-rearing, which, if late in the fall, would be apt to bring on disaster, because the young bees were too weak for wintering.

"How would you dispose of second swarms?"

Mr. Sutton—Place a bush tied to a pole near the cluster; they will settle on it, and you can lean it up against something; then take the queen-cells all out of the hive and put the swarm back where it came from, unless more colonies are wanted; if so, hive it in a new hive.

Mr. Lefever said that if it was a choice colony, crowd it by stimulation so that it will swarm early. Old colonies could be divided and queen-cells inserted.

"How late did you ever have a swarm issue and live?"

Mr. Green had one come on August 17, and it did well.

Mr. Mason had one come on September 17, and it gathered honey enough to live on until spring.

The general opinion was that late and second swarms were not desirable, because the clusters would be too small to winter successfully. The convention then adjourned until evening.

WEDNESDAY EVENING.

The first question for the evening was: "Is the catching of swarms in traps, at the entrance of hives, as they issue, a success?"

M. E. Mason said that it was a success with him. The box is made of thin stuff and is 24 inches long, 14 inches wide, and 10 inches deep. The top of the box is made of wire-cloth. A connection made of tin extends from the lower edge of the box, as wide as the hive-entrance; the box is placed at the hive just as the swarm commences to come out. The swarm must be allowed to remain in the box a short time,—long enough to become quiet, or the bees will take wing again when let out of the box. The bees are emptied out by a three-inch door, the length of the box.

A few present had used the Alley queen and drone trap successfully.

"Is it advisable to have hives stand in the shade?" was next discussed.

J. H. Haggerty, of Polk, Pa., likes the shade from 9 o'clock to 3 p.m. He will have grape-vines for shade in the near future.

Mr. Coon was troubled several times by bees swarming out. Sometimes several swarms were in the air at the same time. He shaded them with a shade-board, and raised up the hives about one-half inch, and had no more trouble. He now ventilates the hives by raising the cover a little.

Mr. McLean would have temporary shade. He had his bees in an orchard, and noticed that those in the dense shade did not do so well as those in the sun. The bees need much sun when working on white clover.

"What is the best method of preparing bees for winter?"

Mr. Haggerty first wintered his bees on ten Langstroth frames, but he now uses from six to seven, and has one on but three frames. His bees are packed tightly, with only a hole in the bottom-board covered with wire-cloth, for ventilation; he uses a few frames because he used too many at first,—and there was too much honey. He has chaff on top, too, and closes the entrances of his hives, but opens them on warm days to give the bees a flight. Too many bees are lost in the snow, if the entrances are left open.

Mr. Sutton said if success is desired in wintering bees, they must be prepared early in the fall. If they need feeding, feed early. He prefers the jelly-glass feeder—an atmospheric feeder, and makes a syrup of 25 pounds of sugar and 10 pounds of water. Last fall the buckwheat was cut off early, so he had to feed; he prefers feeding sugar to feeding good comb honey, because it is cheaper; but best of all, have frames filled with honey.

Mr. Wilson had sugar to crystallize for him; but crystallization can be prevented by using a little glycerine in the syrup.

Mr. Mason said that he had more trouble in "springing" than in wintering bees. The first good day in spring he takes out all the frames that the bees cannot cover, closes up the frames with division-boards on each side, and covers with oil-cloth so as to economize heat, which assists in brood-rearing.

Mr. Sutton also uses oil-cloth over his bees in summer.

What must a person do, whose bees need feeding in winter? If bees are in the cellar they might be fed the "Good" candy. If out-doors, let them alone, or feed over the cluster.

Is it advisable to raise the hives from the bottom-boards? If so, how high? Quite a number prefer a slight ventilation at the top of the hive.

Does it do any harm to have the entrance of the hive covered with snow? No; not with upward ventilation.

The convention adjourned until 9:30, Thursday morning.

SECOND DAY.

MORNING SESSION.

The convention was called to order at 9:30 a.m., by President Lefever.

The first question: "Is it profitable to use sections with full sheets of foundation, that were in the hive the previous season, but not drawn out?"

Mr. Sutton did not use full sheets of foundation in the sections,—only starters. He thought that he got a thinner septum by using starters only.

Mr. Mason said that it all depended upon the appearance of the sections; if very badly spotted and covered with propolis, he would not use them; if the sections are clean, and if the foundation is badly eaten at the corners, as it often is, he would cut out the old foundation and put it on the wax-pile, as it is impossible to get honey in nice shape with foundation thus eaten. He would advise all to use full sheets of foundation in the sections, because then you have all worker-comb. If only starters are used in the sections, bees are apt to build drone-comb at the bottom of the starter, which, at swarming-time or before, is very apt to tempt the queen to go into the sections, especially if there is none, or but very little, drone-comb in the brood-nest.

Mr. Lefever referred to bee-keepers who had lost bees in wintering, which he attributed to excessive contraction of the brood-nest at the time of the white-honey harvest. He would not have less than eight frames, so that the bees would have good honey to winter on.

After a lively discussion it was found that the majority rather favored not too large a hive, yet more opposed too much contraction at the time of the honey harvest. The election of officers for the ensuing year was the next business in order, and resulted as follows:

W. A. McLean, of Osborn, Pa., President; H. S Sutton, of Franklin, Pa., first Vice President; George Spitler, of Mosiertown, Pa., Secretary, and R. D. Reynolds, of Cooperstown, Pa., Treasurer. Executive Committee, M. E. Mason, D. H. Lefever, and C. H. Coon.

Cleveland, O., was chosen for the next meeting, at the same date as the meeting of the Ohio State Beekeepers' Association.

"What is the best method of extracting wax from old combs?" was asked.

Mr. Sutton puts broken-up combs into burlap sacks, which are then put into a wash-boiler, or large kettle; when melted, he presses it out as best he can by using sticks to press it with.

Some use the Swiss wax-extractor. Different methods were given, but none seemed to be perfectly satisfactory with old combs. There was no trouble with new combs. Be cautious, and do not boil the wax.

The convention then adjourned until 1 p.m.

AFTERNOON SESSION.

The first question was: "What other business is best suited to go with bee-keeping?"

Mr. McLean thought that fish-culture would go well with bee-keeping if a person was rightly situated.

Mr. Lake has fish, bees and chickens, but they all need attending to at the right time, if success is desired.

Mr. Lefever said that poultry will help, and he believes that winter dairying will pay the best of anything in connection with bee-keeping, if a person has

good, succulent food, such as ensilage, roots, etc.

Mr. Green follows milk-dairying, and delivers milk to customers in Greenville. He makes the two go well together.

Mr. Coon keeps sheep, and made it pay well by raising early spring lambs for market.

"How do you remove propolis?"

Mr. Sutton uses fine sand, and also Seneca or lamp oil. Alcohol is good.

"How would you build up colonies in the spring, in time for the honey-flow?" Work for honey, but not for swarms, and do not divide the colonies.

"How soon after the swarm issues, ought the sections to be put on?" Put them on in about twelve hours, if you have the hives full of combs, or frames filled with foundation.

"How soon in the spring should upward ventilation be stopped, to promote brood-rearing?" The weight of opinion was in favor of a very slight upward ventilation by absorbents, such as chaff, leaves, saw-dust, etc. On the first nice day in the spring, put on oil-cloth, and cover again with absorbents.

After unanimously passing appropriate resolutions, the convention adjourned.

FEEDING.

The First Pollen Gathered for the Season.

Written for the Prairie Farmer

BY MRS. L. HARRISON.

Bees gathered their first pollen on March 15, amid general rejoicing. It is meet that they should rejoice, with the first new bread of the season, after living on canned goods so long. This new, fresh diet will impart new life to the denizens of the hive, and they will awake from their drowsy slumbers, and no more "folding of their hands to sleep." Spring-time has come, and "the voice of the turtle is heard in the land;" the elms are flowering, and yielding pale-yellow pollen, and catkins are appearing on the willows, which will soon yield honey and bread. All Nature rejoices, and the "Old Man of the Woods" arouses from his slumbers and shakes the snow from his mantle.

The queen, being fed so generously by her subjects, will commence her arduous labors of rearing a large family. It is to be hoped that she will not be too ambitious, and lay more eggs than the bees can hover. To-day (March 18) is quite cool and chilly, and the bees will contract the cluster, to keep warm, and if in doing so the larvæ are unprotected, they must perish. I remonstrated against our bees being removed from the cellar during the warm days—although they were loud in their demands for a flight—fearing that the weather might change to cold, and that the cellar bees might be attacked with a spell of "spring dwindling;" while those that had passed the winter upon the summer stands would not be affected by it, being more hardy from exposure. Therefore fresh air was admitted more freely into the cellar, and their loud demonstrations ceased, and only their quiet, happy hum was to be heard.

Spring Feeding of Bees.

I will take back all I ever said about stimulative feeding in early spring. Localities may differ in this respect, as in many other things, but I am convinced, by repeated trials, that it is a decided injury here. It excites bees to activity, and they will fly out in inclement weather, in search of water and mineral salts, and perish, and their death prove a serious loss to the colony, at a time when their services were most needed. More young bees may be reared, but at a time when their services are not worth so much to the commonwealth as the old ones are.

Feeding rye-meal, ground-oats, pea-flour, or unbolted wheat-flour in early spring, as a substitute for pollen, is advocated by many, the food being placed in shallow boxes, in sunny nooks protected from winds. This may be well in some localities, but here the pollen appears almost as soon as it is safe for bees to fly, as the overflow from the river draws out the frost from the roots of trees before it is out on the highlands.

Some bee-keepers report bushels of food appropriated by bees, but, where there are so many mills and flour-stores, they prefer to fly from home in quest of it. I have seen those white bees entering hives in early spring, but, as soon as pollen appears, there will be no more dusty millers seen.

Peoria, Ills.

PRIORITY.

The Legality of Priority of Location.

Written for the American Bee Journal

BY J. E. POND.

I should give no further time to discussing the above question, did I not think that in justice to myself a brief reply to Mr. S. T. Pettit's article, on page 217, should be made.

In stating my position as I have since the discussion first began, I have taken none but a legal view of the matter; sentiment has been entirely ignored, as it has nothing to do with a question of legal rights. I may feel that any competitor, no matter what the business, might have let me remain untroubled in my chosen locality; but what am I to do about it, if he keeps within the law?

I have asked time and time again, for those who view the question as does Mr. Pettit, to give some plan or method by which the evil, as he deems it, may be remedied; as yet, none is offered, but instead thereof, I am asked how I would like it myself to have my own field occupied? Well, now, to what more is the bee-keeper legally entitled, as a matter of legal rights, than "the butcher, the baker, the candle-stick-maker," etc., whether the same be sentimental or practical? Till this question is answered differently from what Mr. Pettit will answer it himself, or until he or some other will devise some plan by which human rights can be legally ignored, I must assert, and try to maintain whenever called upon to do so, that the sole question is just that simple that Mr. Pettit criticises, viz.: Can any one who chooses, keep bees upon his own land?

One reason for making the question thus simple is, that if I am met with the idea that the keeping of bees may constitute a nuisance, my answer at once is, what is a nuisance in myself in keeping bees must also be a nuisance on the part of my neighbor; and does not, therefore, form any factor in the original problem.

I have no doubt that Mr. Pettit feels as he writes, and I can only ask him the question (which his article confessedly admits has but one answer), viz.: If another man does plant an apiary on his own land, in such a way that it may interfere with your rights, what are you going to do about it? or how can you legally prevent it? And again, what legal remedy can you advise in the matter? Again, doesn't Mr. Pettit rather beg the question, not only in the whole article, but when he says that he thinks that I will agree with him that the man ought to have located elsewhere?

I have not written the above with a desire to cause a discussion, but to endeavor to show that I have not "hastily reached a decision;" and to ask any who think that I have, to show wherein I am in error.

Gathering Honey and Pollen.

My observation generally has shown me that Nature, as a rule, makes no mistakes; that "like produces like," and that in cross-fertilization, the rule follows as elsewhere. Mrs. Chaddock may have seen bees traveling to different flowers on the same trip, but that does not prove anything, even argumentatively; 'cause why? Because (a woman's reason, I know), that if when she saw bees going to the different flowers, I think that she would have found, on examination, that there was no pollen in them, and as a consequence, no chance of mis-fertilizing.

As for myself, I have experimented in this very matter quite largely, and I have never seen one instance of a bee working on different varieties of flowers on the same trip at any time; and I do not believe that anyone has seen them do so at a time when cross-fertilization was possible. If Mrs. C. has seen this, let her say so, and I will believe her; but simply saying what she has on the subject, does not affect the question at all; for the reason, that the rule is not broken, unless the conditions are not right for breaking.

I do not advocate at all the wonderful second sight that some claim for bees, but I am an advocate of the doctrine that "Nature makes no mistakes;" and the mere fact that bees have been seen to visit different varieties of flowers on the same trip, is not necessarily even the exception that proves the rule.

North Attleboro, Mass.

Month of April.

Written for Vick's Magazine

BY MRS. M. J. SMITH.

Patter, patter, patter,
Hear her feet on yonder hill;
Coming, coming, coming,
How the little branches thrill,
Singing, singing, singing,
Wakening every tiny rill;
Listen, sister, listen,
Cease your shriekiog, March, be still.

Almost swelled to bursting,
Holding scents to woo the bee,
With a gladsome knowledge
Of the bloom we cannot see,
Little buds are peeping
Upward, outward, just to be
First to let this maiden
Kiss, and set the petals free.

Poets call her fickle,
In the far-off days of yore;
Poets call her changeful,
And they sit beside our door;
But I call her constant,
Ever bearing plenteous store,
At the time appointed
Entering the humblest door.

Were our friends as changeless,
Were our lovers just as true,
If the thoughts we scatter
Fell like April's morning dew,
Clear as crystal, giving
To some cold heart impulse new,
Morrow's dawn would open
The millenium to view.

CANADA.

Report of the Brant Bee-Keepers' Convention.

Written for the American Bee Journal

BY R. F. HOLTERMANN.

The Brant Bee-Keepers' Association met at Brantford, Ont., on March 30, 1889, at 2 p.m., with President Howell in the chair.

The steps necessary to retain affiliation with the Ontario Bee-Keepers' Association were taken, the members for the Ontario being as follows: G. H. Morris, S. A. Dickie, R. J. Howell, Thos. Murray, Thos. Birkett, and G. W. Barber, with Representatives D. Anguish and R. F. Holtermann. An invitation was received to meet at Harley, Ont., at the next quarterly meeting, which was accepted.

It was decided that if the Grant would allow, to give toward the prize-list at Brantford and Harley, for honey and bee-keepers' supplies. The prize-list was then made up, which will amount to over $60.00 for Brantford. A list of names for judges was made out, and the Secretary instructed to correspond with those selected.

Results of Wintering, Etc.

President Howell reported that he had lost 4 colonies out of 32; two of them had starved outright, and several he knew were too light in the fall.

Mr. Ramey stated that he had packed chaff around his hives, about 6 inches thick, and the colonies were all alive and doing well.

This question was asked: If a colony is divided, will the one left without a queen build its own queen-cell? Answer: Yes; if brood three days from the laying of the eggs is given them, or eggs. It was, however, suggested by one, that it would not be advisable to divide colonies.

Mr. Birkett said that he generally put all second-swarms back, and had but little trouble.

D. Anguish reported that his bees were all alive, yet he put 4 colonies out ten days ago; 3 of these had consumed 10 pounds of stores each. The temperature was about 48° above zero.

T. Birkett keeps his bees in the cellar, and 3 colonies died (starved) out of 56. The cellar was dry, and too warm to keep potatoes in. The bees were very quiet.

Mr. Barber put 103 colonies away—35 outside and the balance in the cellar. One colony was starved, and the balance he thought were alive. The present temperature of his cellar was 45°; but generally it was 42° to 43°.

Mr. Murray winters his bees outdoors, in a shed facing the south. The hives are chaff-packed all around except at the front, so as to expose them to the sun. He uses a shade-board at times, and leaves the entrance open 2 inches wide. One colony has perished out of 18, caused by an undeveloped queen. There were drones late in the fall.

C. Edmonson put 4 colonies away in the fall, in saw-dust packed hives; 1 colony has starved.

W. R. Brown put away 12 colonies; 1 perished and the balance are dry and nice.

W. Morris wintered his bees outside, in clamps. He put in 12 colonies, and all are doing nicely.

J. McIntyre wintered 4 colonies, and they appear to be doing nicely.

Stimulative Feeding.

"Does it pay to stimulate brood-rearing by feeding in the spring?" was asked. T. Birkett said: Give bees plenty of food all at once, then let them alone. All present appeared to agree with Mr. Birkett.

Brantford, Ont.

Convention Notices.

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at Tarbell House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.
H. M. SEELEY, *Sec.*

☞ The Darke County Union Bee-Keepers' Society will hold their spring meeting in the court-house at Greenville, O., on Friday, April 26, 1889.
J. A. ROE, *Sec.*

☞ The 11th annual session of the Texas State Bee-Keepers' Association will be held in the apiary of W. R. Graham, of Greenville, Hunt Co., Tex., on May 1 and 2, 1889. All bee-keepers are invited. The last meeting was held here last May, and was the best ever held. So we look forward to a good time next May. A cordial welcome and hospitality will be tendered to all who come. G. A. WILSON, *Sec.*

☞ The semi-annual meeting and basket picnic of the Progressive Bee-Keepers' Association will be held at "Welcome Apiary"—the residence of Mr. J. B. Hains—in Bedford, O., on Thursday, May 2, 1889. All interested are invited to come early and bring their friends. A special invitation is extended to the ladies to be present. Manufacturers of bee-keepers' supplies are requested to bring with them, or send, samples for exhibition. Let all come prepared to do their part towards making it an interesting, as well as a profitable, meeting.
MISS DEMA BENNETT, *Sec.*

CONVENTION DIRECTORY.

1889.	*Time and Place of Meeting.*
April 26.—	Darke County and Union, at Greenville, O. J. A. Roe, Sec., Union City, Ind.
May 1, 2.—	Texas State, at Greenville, Tex. G. A. Wilson, Sec., McKinney, Tex.
May 2.—	Progressive, at Bedford, O. Miss Dema Bennett, Sec., Bedford, O.
May 4.—	Susquehanna County, at Montrose, Pa. H. M. Seeley, Sec., Harford, Pa.
May 15.—	York and Cumberland, at Waterboro, Me. C. W. Costellow, Sec., Waterboro, Me.
May 21.—	Northern Illinois, at Pecatonica, Ill. D. A. Fuller, Sec., Cherry Valley, Ills.
Dec. 4, 6.—	International, at Brantford, Ont., Canada. R. F. Holtermann, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Oranges in Florida.—W. S. Hart, Hawk's Park, Fla., on April 15, 1889, writes:

It looks pretty bad for Florida orange-growers, according to "The Eastern Markets" item on page 179, doesn't it? Let me say that our oranges dropped badly the past season, have been delayed on the way to the north, and many have arrived in bad condition; but the prices have averaged well, and still continue to do so. Nearly all of my crop went to Boston, and $3.50 per box was the lowest price obtained, with $4.50 for "fancies." There are fortunes in such prices, or half as much. It was the dropped oranges that rotted here.

Ventilation of Bee-Repositories.—H. B. Sisson, Ottumwa, Iowa, on April 15, writes:

As a constant reader of the principal bee-papers of the country, and as the ventilation of the winter quarters of bees has been my hobby for the last 25 years, I can also state that I too know a little about the subject, as I have wintered from 150 to 200 colonies year after year with only a loss of from 3 to 5 per cent. Dr. Miller states in his article, on page 231, that he knows a little about ventilation, yet he gives the reader no information in regard to his method. Oxygen is necessary to the life of the bee, and to remove the poisonous gases is the question that I have settled, and have given my methods to the public heretofore.

Signs of a Good Honey Crop.—Rev. Stephen Roese, Maiden Rock, Wis., on April 19, 1889, writes:

Of the 84 colonies that I put into the bee-house last fall, I took out, on March 19, 82 alive; but 4 were queenless, judging from there being no brood in the hives, and they united at their first flight with a colony having a laying queen, and 3 more have, since the cold spell, dwindled away, which I united with other weak colonies. The weather is fine but cool, and the bees do not feel like venturing far home; consequently close watch must be kept, so that robber-bees will not get into some weak colonies. The maple and elm buds have opened, and pollen is coming in during the midday hours very fast. With the exception of 3 or 4 colonies, my bees are all in good condition, and I consider them a month ahead, judging from last season at this time. We have all the signs of a good honey crop this season.

Good Honey Season Expected.—J. K. Rich, Cato, N. Y., on April 16, writes:

I took my bees from the cellar to-day, and found them in good condition. I wintered 28 colonies in the cellar, and 12 on the summer stands; I lost one of the latter for want of stores. I have 12 colonies of Italians, and 4 of Carniolans, and the balance are blacks. I am very much pleased with the Carniolans. The prospects are that we will have a good honey season here. The white clover looks well, and we had no ice-storms the past winter to injure the baswood; I shall look for a large yield of the latter.

Three Poor Seasons.—Lewis Schnerr, Turnpike, Pa., on April 6, 1889, says:

I am a boy 12 years old. My father has 50 colonies of bees, and we have to feed them now. For the last three years it has not paid to put the sections on and off, as there has been no honey.

Toad-Stools for Smoker Fuel.—H. M. Seeley, Harford, Pa., writes:

I notice on page 230 that none who answer queries use the same bee-smoker fuel that I use. I have tried many kinds, and the best for me is the toad-stools growing on old maple and birch stumps and logs. They will not go out until they burn out, and they give all the smoke necessary—for me, at least.

Early Drones—Good Prospects.—John E. Turner, Woodington, O., on April 9, 1889, writes:

The weather is very mild here this week, and the bees are just "boiling over." Mine began to gather pollen from sawdust on March 14, but on the 15th they began to work on the maples. They are all very strong, and are breeding very rapidly. I have a colony of black bees that has a lot of drone-brood capped over. It is quite early for drones to be hatching now! The white and Alsike clovers are in good condition here, and the prospects for a good season are flattering.

Alsike and White Clovers.—Chas. K. Bixler, Hoyt, Iowa, on April 12, 1889, writes:

Bees in this vicinity have wintered exceedingly well. My 36 colonies wintered without loss. The first pollen was gathered about March 15, from soft maples. Now cottonwood and elm are yeilding an abundance of pollen. In the last week we have had plenty of rain. White and Alsike clovers are in splendid condition, so the prospects are good for a splendid honey-year; but we will have to wait, for the hopes of to-day may be soon blasted.

White Clover Looks Promising—Chester G. Ridout, Hutchinson, Minn., on April 13, 1889, writes:

The weather here is exceedingly fine for this time of the year. We have had no rain to mention this spring, and the grasses and clovers are greatly in need of a heavy shower. I took my 12 colonies of bees from the cellar and placed them on the stands last Friday (April 5), and found all strong and healthy; with but one exception they had plenty of sealed brood and eggs. The one having no eggs or brood was short of stores, and I was obliged to give it 4 frames of sealed honey. With a little feeding, however, I think it will build up for white clover, which at present looks very promising. I find that if a little tobacco is mixed with the fuel when put in the bee-smoker, the crossest bees can be handled with comparative safety.

Wintered in Fine Condition.—S. M. Kelley, Kirby, Wis., on April 10, 1889, says:

I took 22 colonies of bees from the cellar on April 6, in fine condition. To-day they are very active, bringing in pollen from the skunk-cabbage and pussy-willow, which is abundant in this vicinity.

Bees Wintered Well.—J. B. Dunlap, Rochester, Ind., on April 10, 1889, says:

My bees have wintered quite well, and, have been very busy for nearly a month. I wintered some colonies in the cellar, and had 3 on the summer stands. I had 4 colonies on the summer stand, but I lost one of them.

Early Pollen-Gathering, etc.—M. R. Cullison, M. D., Adel, Iowa, on April 15, 1889, says:

Last fall I prepared 44 colonies of bees for an extra hard winter, and as a consequence they got too warm, bubbled over, and 12 colonies are left to tell the tale! Should the weather prophets be extinguished? or only the few, that continue to take just a little stock in their predictions?

Wintered Extremely Well.—C. A. Goodell, Mankato, Minn., on April 8, 1889, writes:

I put 17 colonies of bees into the cellar and I put 17 out this spring, all very strong excepting 1, and that is all right now. The first pollen was gathered by the bees here on March 19—earliest I ever saw it gathered in Minnesota. The weather has been very bad for the last 10 or 12 days for the bees; it is raining some while I am writing—the first rain this spring. The bees have wintered extremely well in this locality.

Populous Enough to Swarm.—S. D. Haskin, of Waterville, Minn., on April 12, 1889, says:

I never have had bees booming so in the spring. They worked almost every day since March 1. Some are populous enough to swarm, and keep up their happy hum all night, though it often freezes quite hard. A Mr. Kenny, here, makes sorghum molasses so pure that the bees will take it quite freely.

Cellar-Wintering Theory.—W. A. Hodge, Victory, Wis., on April 12, 1889, writes:

I have been watching the cellar-wintering plan for a number of years, and I am fully satisfied that the cellar is *the* place to winter bees, provided that it is a good dry one, and so arranged as to be ventilated when necessary. Now for some of the proof: I put into my cellar, last fall, 43 heavy colonies of bees, and this spring I have taken out 43 colonies nearly as heavy as when I put them in. My neighbor, only a short way from me, has a good, dry cellar, into which he put about 50 colonies, and he has taken out every one of them in good condition.

Bees in Good Condition.—Geo. Spitler, Mosiertown, Pa., on April 9, 1889, writes:

I overhauled the bees, yesterday, that I have packed out-doors, and I found them all in good condition. I have lost but one good colony out of 23. The bees carried in pollen at a lively rate; none are queenless, and there is lots of brood. I have some colonies in the cellar that are all quiet, except one. I will carry them out after the next rain, which is coming soon. White clover is in good condition. I have heard of but few losses of colonies.

Neglected Bees May Starve.—Christian Weckesser, Marshallville, Ohio, on April 15, 1889, writes:

We have just had quite a spell of cool weather, and the bees have not been able to do much, but generally they are in good condition, though care must be exercised to keep them supplied with stores till clover comes, which promises to be good. No doubt bees that are neglected will starve before then, if they do not get more, accordingly, than they have thus far. This will not be very harmful, however, driving, as it does, the careless out of the "field."

Swarms Expected Soon.—John Boerstler, Vashon, Wash. Ter., on April 13, 1889, writes:

Bees are doing well, and will swarm soon—the drones are flying already. I think that we will have a good honey harvest this year. My hybrids are doing the best, I think. I believe they will be ahead of my Italians. They are the largest hybrids that I ever saw. I have just received some Chapman honey-plant seed from the department of agriculture, at Washington, D. C. I will give it a good trial this year. We have had summer weather all along. Fruit looks well.

Loss of Weight in Winter.—O. B. Barrows, Marshalltown, Iowa, on April 15, 1889, writes:

On page 220, Mrs. L. C. Axtell says: "The bees apparently have not consumed as much honey as is usual in winter." Of 35 colonies, carefully weighed on putting them into the cellar, and weighed again after taking them out, the smallest loss was 5¼ pounds, and the greatest loss was 22 pounds, the average being 12½ pounds. There was no perceptible difference in loss between those put in on November 8, and those put in on November 19; but perhaps there was not difference enough in time to be any test of Dr. Mason's new departure.

Prospects of a Good Season.—E. F. Quigley, Unionville, Mo., on April 13, 1889, writes:

The following is the report of the condition of bees in this (Putnam) county, so far as heard from: 98 per cent. have wintered well, and 5 per cent. were queenless. Nearly all the bees in this county are in box-hives. The first pollen gathered was on March 15. The weather is a little colder now. Bees wintered in my apiary as follows: Carniolans, 1st best; pure Italians, 2d; hybrids, 3d, and blacks 4th best. No amount of warm weather would induce the Carniolans to come out. They used less honey than any others, and are the strongest of any now. White clover is in fine condition, and the prospects are good for a large honey yield for 1889. My 1888 honey crop was 40 pounds per colony of comb honey.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	Club
The American Bee Journal	1 00...	
and Gleanings in Bee-Culture	2 00....	1 75
Bee-Keepers' Guide	1 50....	1 40
Bee-Keepers' Review	1 50....	1 40
The Apiculturist	1 75....	1 65
Bee-Keepers' Advance	1 50....	1 40
Canadian Bee Journal	2 00....	1 80
Canadian Honey Producer	1 40....	1 30
The 8 above-named papers..	5 65....	5 00
and Langstroth Revised (Dadant)	3 00....	2 75
Cook's Manual (**old edition**)	2 25....	2 00
Bees and Honey (Newman)	2 00....	1 75
Binder for Am. Bee Journal	1 60....	1 50
Dzierzon's Bee-Book (cloth)	3 00....	2 00
Root's A B C of Bee-Culture	2 25....	2 10
Farmer's Account Book	4 00....	2 20
Western World Guide	1 50....	1 30
Heddon's book, "Success,"	1 50..	1 40
A Year Among the Bees	1 75....	1 50
Convention Hand-Book	1 50....	1 30
Weekly Inter-Ocean	2 00....	1 75
How to Propagate Fruit	1 50....	1 25
History of National Society	1 50....	1 25

Do not send to us for sample copies of of any other papers. Send for such to the publishers of the papers you want.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Triple Lense Magnifiers have been so often called for that we have concluded to keep them in stock for our subscribers to inspect bees, insects, etc. See page 212.

Price, by mail, 80 cts.; or the BEE JOURNAL one year, and the Magnifier, for $1.50.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

What Apiarists Say about the April number of the ILLUSTRATED HOME JOURNAL, which they have just received, may be ascertained by the following which are samples of the multitude:

Prof. A. J. Cook, Agricultural College, Michigan, writes thus: "The Illustrated Home Journal, is at the very head in style, typography, and everything that pertains to the printer's art, and no wonder, for T. G. Newman is its publisher. The initial number surely promises a genuine success, if success is possible in this day of severe competition. We wish the enterprise a full measure of prosperity."

P. H. Elwood, Starkville, N. Y.: "The April number of the Illustrated Home Journal came a few days ago, and it seems to be a general favorite in the family circle. I have no doubt it will be a grand success."

J. W. Vance, M. D., Madison, Wis., writes thus: "We are very much pleased with the Illustrated Home Journal, and wish it abundant success."

Frank A. Eaton, Bluffton, O., writes thus: "I am delighted with the Illustrated Home Journal; its contents are choice literature, and it is filled with fine instruction, which makes it true to name. Its typography and quality of paper are the best. I shall carefully preserve Volume IV, commencing with the April number, and have it bound."

Mrs. L. C. Axtell, Roseville, Ill., writes thus: "The Illustrated Home Journal is received, and I have read the greater portion of it through, and find it a magazine of much better tone than the most of our home and fireside reading; in fact I am well pleased with it, and wish you success."

The Rev. M. L. Williston, Chicago, Ills., writes: "The Illustrated Home Journal has come, and I admire this Centennial number greatly. You have made a rich issue of it."

G. W. Demaree, Christiansburg, Ky., says: "As a magazine for the family, the Illustrated Home Journal cannot help being a pleasing visitor in the families, wherever it goes. I have seen nothing of the kind in our family that is so pleasing as your Illustrated Home Journal."

H. H. Brown, Light Street, Pa., writes thus: "I received the Illustrated Home Journal for April a few days ago. It is a magazine that should be found in the homes of all who desire a paper that gives instruction, and its articles are of such a nature that they cannot help but please all who read its pages."

C. H. Dibbern, Milan, Ill., thus writes: "The first number of the Illustrated Home Journal was duly received. I have now had time to look it over, and form some opinion of the character of the work. Coming all unannounced, it is certainly a very agreeable surprise to us all. The style of printing, and the character of its contents, are first-class. The Illustrated Home Journal will no doubt take its place speedily among the leading journals of the day, and do what it can to make the world better and happier."

G. K. Hubbard, Fort Wayne, Ind., writes as follows: The Illustrated Home Journal was duly received, and shows that it has been through the hands of skilled workmen, from its general make-up. The editor evidently has a correct idea of the PURE and ENTERTAINING class of reading which should be placed in our homes. I wish you abundant success.

Never did the advent of a magazine for the family touch such a responsive chord, or receive such a hearty welcome.

Trial subscriptions will be taken 3 months for 40 cents each; or it will be clubbed with the BEE JOURNAL for a year at $2.00 for both. Agents, who are working for premiums, may take "trial subscriptions," and count 4 as one yearly subscriber. One sample copy sent free to subscribers of the BEE JOURNAL, upon application. That will tell you all about the "Premiums" offered for getting up clubs, and "Cash Prizes" for the largest clubs sent in before Sept. 30, 1889. "Good pay for good work" is our motto. See page 238.

DORÉ ART PORTFOLIO,

PRICE, 50 CENTS,

Will be CLUBBED with the AMERICAN BEE JOURNAL, at the low price of $1.25, postpaid.

This magnificent Art Portfolio is in size just 11x14 inches, and besides a picture of Gustav Dore, the great French Artist, it contains the following beautiful engravings: Expulsion from the Garden of Eden—Entering the Ark—Noah Cursing Ham—Samson and Delilah—Ruth and Boaz—Death of Saul—The Judgment of Solomon—Daniel in the Lion's Den—Daniel Confounding the Priests of Baal—The Nativity—Christ Healing the Sick—Sermon on the Mount—The Disciples Plucking Corn on the Sabbath—Jesus Walking on the Water—The Agony in the Garden—Death of the Pale Horse. Seventeen handsome full page plates under one cover.

Honey and Beeswax Market.

HONEY.—White 1-lbs., 15@16c.; fall or dark, 12@14c. Extracted, 8c. for white. Supply large and demand light.
BEESWAX.—None in market.
Apr. 9. CLEMONS, CLOON & CO., cor 4th & Walnut.

CHICAGO.

HONEY.—Our trade is light; no large lots on hand and what there is consists chiefly of dark comb, and not salable in quantities. Choice white comb, 1-lb. sections, 16@17c.; dark grades from 10@12c. Very little demand for extracted, but prices remain at 7@9c., according to quality and package.
BEESWAX,—22c. R. A. BURNETT,
Mar. 25. 161 South Water St.

DENVER.

HONEY.—White, in 1-lb. sections, 16@18c. Extracted, 7@10c.
BEESWAX.—18@20c.
Mar. 26. J. M. CLARK & CO., 1409 Fifteenth St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 16@17c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c. If damaged and leaky, 10@12½c. Extracted, white, in barrels, 8@8½c.; ½-barrels, 8½@9c.; amber in same, 7@7½c.; in pails and tin, white, 9@9½c.; in barrels and ½-barrels, dark, 6@6½c. The demand is fair.
BEESWAX.—20@22c.
Mar. 27. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—Market is bare of comb, except some small lots of buckwheat which is selling at from 10@12c. No buckwheat extracted. Cuba and San Domingo extracted, 67@70c. per gallon.
BEESWAX.—24c.
HILDRETH BROS. & SEGELKEN,
Mar. 25. 28 & 30 W. Broadway, near Duane St.

ST. LOUIS.

HONEY.—Demand limited to local wants, which are small. We could sell some to country points in barrels and ½-barrels at 6½@7c. for extracted; in cans, 7½c.
BEESWAX.—21c. for prime.
Mar. 25. D. G. TUTT & CO., Commercial St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½@7 cts.; amber, 5½@6c. Comb, white 1-lbs., 13@14c.; 2-lbs., 10@12c. Demand for extracted is good; for comb, limited. Prospects are not as good for honey as in 1888.
BEESWAX.—Scarce, at 18@22c.
SCHACHT, LEMCKE & STEINER,
Mar. 15. 16 & 18 Drumm St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 18@20c.; best 2-lbs., 17@18c. Extracted, 8@9c.
Sales have been checked a little on account of maple sugar and syrup being so plentiful. Quantity of honey in the market is sure to be entirely closed out before new crop comes.
Apr. 8. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 15@16c. Sales slow. Extracted, 8@9c. Demand small, prices lower.
BEESWAX.—22@23c.
Mar. 22. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 15@16c.; 2-lbs., 12@31c. Good dark 1-lbs., 12@13c.; 2-lbs., 10@11c.
Mar. 21. S. T. FISH & CO., 189 S. Water St.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@15c. Demand is slow, and prices low.
BEESWAX.—Damand is good—20@22c. per lb. for good to choice yellow, on arrival.
Mar. 21. C. F. MUTH & SON, Freeman & Central Av.

Convention Notices.

☞ The second meeting of the York and Cumberland Bee-Keepers' Association will be held in the Good Templar Hall, at South Waterboro, Maine, on May 15, 1889, at 9:30 a.m. A cordial invitation is extended to all. Matters of interest will be discussed. Bring your hive or some useful implement for exhibition. Hotel accommodations may be had in the village at reasonable rates. C. W. COSTELLOW, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Brantford, Ont., Canada.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Advertisements.

FRIENDS: If you are in need of fine Albino or Italian Queens and Bees per pound, or Eggs for hatching from W. C. B. Polish and R. C. B. Leghorns, it will pay you to send for my Circular and Price-List free. **JOSEPH MOSER,**
17A1t FESTINA, IOWA.

PATENTS THOS. P. SIMPSON, Washington, D. C. No atty's fee until Patent obtained. Write for Inventor's Guide
17D6t

TANSY PILLS! Safe, Certain and Effectual. Particulars 4c. **WILCOX SPECIFIC CO., Phila., Pa.**
17A1y

My 21st Annual Price-List of Italian, Cyprian and Holy-Land Bees, Queens and Nuclei Colonies (a specialty): also Supplies—will be sent to all who send their names and addresses. **H. H. BROWN,**
17Dtf LIGHT STREET, Columbia Co., PA.

ITALIAN and Carniolan Queens by return mail. Tested, in May, $2.00. Reared in June and July, until further notice, Untested Queens, $1.50; Tested, $2.00. Tested and Selected, $2.75. And also how to introduce Queens. **SPERRY BROS.,**
17A1t LA HARPE, Hancock Co., ILLS.

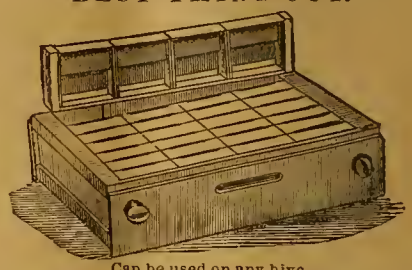
CARNIOLAN QUEENS.
AM now booking orders for June. Tested, $4.00; Untested, $1.00, or $5.00 for ½ dozen.
☞ **Send Postal for Circular.**
S. W. MORRISON, M.D.,
17A5t OXFORD, Chester Co., PA.
Mention the American Bee Journal.

LOOK HERE!
TO reduce my stock I will sell 2 Langstroth frames of brood and ½-lb. of Bees for $1.50; 3 frames and 1 lb. of Bees, $2.00. Bees per lb. $1.00. Tested Italian Queen, $2.00. Also Full Colonies for sale. Satisfaction and safe arrival guaranteed. No foul brood. **H. L. PANGBORN,**
17A2t MAQUOKETA, IOWA.
Mention the American Bee Journal.

EVERY BEE-KEEPER SHOULD TRY
THE SUCCESS HIVE!
TRUE TO ITS NAME!
SAFE winterer, easy in manipulation, durable, cheap, and, for large yields of honey, is unsurpassed.
Sections, Section-Cases, Comb Foundation
and all Apiarian Supplies, at greatly reduced prices. Send for New Circulars, free.
L. H. & W. J. VALENTINE,
(Successors to S. Valentine & Sons),
17Dtf HAGERSTOWN, Wash. Co., MD.

HANDSOME SECTIONS.
WE have a limited quantity of One-Pound Sections, 4¼x4¼, a trifle less than two inches wide, with narrow tops, in packages of 1,000 each. They are manufactured from extra white lumber, are very uniform, making them the finest and most attractive honey-section in the world. Price, $3.50 per package.
THOS. G. NEWMAN & SON,
923 & 925 West Madison-Street, - CHICAGO, ILLS
Mention the American Bee Journal.

HURRAH FOR 1889!
A New Style of Clamp.
BEST THING OUT.



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EVERY bee-keeper should try them. Sections most easily placed in, and removed from, and best protected from bee-glue.
Descriptive Price-List Free.
A 30-page Catalogue. Full line of BEE-KEEPERS' SUPPLIES; also FULL COLONIES, NUCLEI and QUEENS. ☞ Oldest House in New England. Established 1860.
Address, **WM. W. CARY & CO.,**
6A3t-9Dtf COLERAINE, MASS.,
Successors to Wm. W. Cary & Son.
Mention the American Bee Journal when answering this Adv't.

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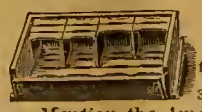
THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILLS.
Please mention this paper when answering.

1889. Italian Queens. 1889.
HAVING moved 8 miles from Nicholasville, to a better location for BEES, I will engage in Queen-Rearing more extensively than formerly. I have the *very best* **ITALIANS** only. Prices:
Select Tested Queens, in April, $3; in May, $2.50; in June, $2.00; July to November, $1.50. Queens warranted purely mated, $1.00; 6 for $5.00.
☞ Make Money Orders payable at Nicholasville. Send for Circular. Address,
J. T. WILSON,
7Dtf LITTLE HICKMAN, Jessamine Co., KY.
Mention the American Bee Journal.



Eaton's Improved
SECTION-CASE.
BEES AND QUEENS. Send for free catalogue. Address
FRANK A. EATON,
3D17t BLUFFTON, OHIO.
Mention the American Bee Journal.

Send for Early Queens
TO J. N. COLWICK:

1 Tested Italian, before May 15,			$2.25;	after,	$1.75.
3	"	"	6.00;	"	4.50.
1 Untested	"	"	1.00;	"	.90.
3	"	"	2.75;	"	2.50.

For 1-Frame Nucleus, with any Queen add, $1.00.
☞ I give a dicount of **10** per cent. on Orders booked for the next 20 days. Safe arrival and satisfaction guaranteed. Send for Price-List.
9D8t **NORSE, Bosque Co., TEXAS.**
Mention the American Bee Journal.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. May 4, 1889. No. 18.

EDITORIAL BUZZINGS.

Shadows.—John Andrews, of Patten's Mills, N. Y., sends the following poetic gem :

When darkness spreads its shade around,
And Hope is shadowed by a fear,
And Fear sits trembling with a tear
Upon its cheek, is wan, and sear,
An anxious wish, or thought, or prayer,
Is breathed in silence everywhere.

The British Bee Journal is to be reduced to one dollar a year, after July 1. It will be mailed to America for $1.50 a year.

We are Sorry to learn that Mrs. Cowan, wife of the editor of the *British Bee Journal*, is again very ill, at Lausanne, Switzerland.

In Smith & Smith's advertisement in Nos. 14 and 16, the offer of smoothing irons was incorrectly stated. Please read the advertisement as corrected on page 285 of this issue.

In Kentucky, Mr. J. T. Wilson writes us that bees are doing finely. He says : "My nursery is in operation. The ground is covered with white clover. The locusts will bloom heavily. The weather is warm and dry."

Winter Packing should be removed and not allowed to remain around the hives in the summer. This is in answer to a question coming from one of our subscribers in Indiana. There are many reasons why it should not "remain all summer." It will keep the hives too cool, and retard brood-rearing. It causes dampness, and is generally disagreeable both to the bees and to the apiarist.

A Good Honey Season is universally expected as well as desired. As *hope* is made up of both expectation and desire—we may correctly announce it as **"the hope"** of all bee-keepers, at the present time.

In the *Western Plowman* for May, just at hand, Mr. C. H. Dibbern expresses himself thus :

As predicted last fall, bees have generally wintered well. The honey gathered during the autumn was excellent for winter stores, and the mild winter has dealt very gently with the bees. I wintered all my colonies (about 175) in the cellar, and I do not think the loss will be over 2 per cent. They are still well provided with honey, which will last till they can get plenty in the fields. The clover has also wintered exceptionally well, so that we may confidently count on a good honey season.

Further on he gives the following as his opinion about the crop :

The season seems to be much earlier than last year, and although it is now but the middle of March, spring seems to be here to stay. Our bees are now all out of the cellar, fully a month earlier than last year. All of them have come out alive, something that has not happened for many years. They are also in exceptionally good condition. From what we can learn from the bee-papers, bees, both in and out doors, have wintered well.

The conditions are all very favorable toward a good honey crop, and bee-keepers should leave no stone unturned to secure their share when it comes. We cannot secure a share of the crop if we are not ready or the bees are not ready. We want the best bees, best hives, and best systems of management known to the most advanced bee-keepers. Then we need not worry about competition. What if some box-hive man produces a few pounds of honey and sells it cheap, that will not put a low price on our white sections filled with still whiter honey.

I commenced bee-keeping 23 years ago by buying one colony in a Langstroth hive, and have had bees ever since. Most of my bees are descendants of that original colony. I do not think that a year has passed that I did not learn something valuable about bees. I still find that there is a great deal to learn.

Mr. J. M. Hambaugh, of Spring, Ills., thus wrote us on April 22, 1889 :

I never saw brighter prospects for a honey harvest, both as regards the clover crop and condition of the bees numerically. I will be putting on surplus arrangements in a few days, for the hives, large Quinby (*a la* Dadant) and ten-frame Simplicity, are *boiling over.*

The Invention of what is known as the "Good" candy was referred to on page 179. The *British Bee Journal* stated that it was the invention of Mr. Scholtz. We requested Mr. I. R. Good to "tell us about" it. He has not done so. Now Bro. T. W. Cowan writes us from Switzerland about it, and gives us the positive proof that it was the invention of Mr. Scholtz. In his "Guide Book," Mr. Cowan mentions it as Scholtz' candy, and in Dadant's Revised Langstroth, on page 321, it is distinctly stated that both are one and the same thing. So there is another laurel for our German brethren. We are glad to make public these facts.

David Ross, of Esbon, Kans., wants to know if we were aware that "Lizzie Cotton" was a man. He sends us the *American Stockman* where the statement is made. Oh, yes, we have published that statement several times, and probably that is where the *Stockman* got its intelligence from. The gender would be no detriment, if the actions were square and right. Of course we do not approve of sailing under false colors. Open, true, honest, square and honorable work will pay every time.

Mr. Ross adds this about his bees : "My bees are doing nicely this spring. There is capped drone-brood in many of the hives."

Judge Richie's Address before the Farmers' Institute at Bluffton, O., was a very fine effort. We give an extract from it in this issue of the BEE JOURNAL. He is an eminent lawyer, and has just taken his seat on the Common Pleas Bench of that District. He is also a practical bee-keeper, having 30 or 40 colonies, which, however, are more for pleasure than profit. His Italian bees are very fine. The Judge will assist the pursuit whenever it is in his power to do so—and help to defend it against ignorance and prejudice.

Young Queens are important to every colony of bees. In ordering Doolittle's new book, Mr. J. D. Goodrich, of East Hardwick, Vt., thus expresses himself on this subject : "Please send me one of the books just as early as possible, for I wish to try the method this season. I believe in young and good queens every time. In looking over my bees, in the spring, I almost invariably find that the best colonies have young queens, and are the ones to winter the best."

Swarming is Nature's provision for the perpetuation of the race of bees. W. S. Withey, of Milford, N. H., asks : "What is the best way to keep bees from swarming ?" They cannot be kept from swarming as long as they feel crowded, and have a desire to seek more room by emigrating from the old hive. It can often be retarded, however, by giving them more room—or the colony can be divided, and thus accomplish the same thing in another way, as if they had swarmed.

Catalogues for 1889 are on our desk from—

A. G. Hill, Kendallville, Ind.—32 pages—Bee-Keepers' Supplies and Bees.

J. L. Flint, Marion, Iowa—1 page—Fowls.

H. H. Brown, Light Street, Pa.—20 pages—Bees and Bee-Keepers' Supplies.

Arbor Days.—April 26 is Arbor day for Minnesota ; April 24 is Arbor day for North, and May 2 for South Dakota. These days should be generally observed ; a day cannot be devoted to a better service. Villages, schools, neighborhoods and families should unite in making Arbor days memorable.—*Exchange.*

GLEANS OF NEWS.

That a Bee Dies soon after losing its sting, has been very confidently and repeatedly asserted. In fact, it has been considered a "settled fact," and so it has been reiterated without question. Now it appears that Mr. Doolittle has been making an investigation in that line as well as in queen-rearing. The results of experiments are thus stated by him in the *Rural Home* for last week:

A correspondent wishes to know whether a bee can live and do work after it has stung a person, leaving its sting; or if it dies, as is generally believed by many persons who keep bees. Up to within the past ten years nearly all believed that a bee which had stung any one must surely die, for in leaving the sting, as the honey-bee nearly always does in stinging an animal, a part of the intestines was supposed to be left with the sting, poison-sac, etc., from which it was argued that the bee could not live.

This seemed so reasonable that I formerly believed that the idea which prevailed was true, till one day after a bee had stung me, leaving its sting, it came to attack me again and again, with all the fury and vengeance possible for a bee to work itself up to, getting in my hair and singing away as only an angry bee can sing, which will make the cold chills run up and down the back of the most hardened individual. As this bee apparently had no thought of dying, it was caught and caged with two or three others, and kept a week or so to see what would become of the matter. At the end of the week it was apparently just as lively and healthy as any of the rest, when all the bees were set at liberty.

At another time, when putting up queens to send away—in catching the escort-bees which were to go with the queen, one of them stung me on the end of my finger, leaving its sting, when it immediately ran into the cage. As I did not wish to remove all of the bees and queen, to get it out, I let it go, soon after which the thought came to me that here would be a chance to test the theory of the death of the bee from losing its sting, as the queen was going to Texas, which journey would require from eight to ten days time. Accordingly I wrote to the party to whom they were sent, telling him all about the matter, and asking him to take notice particularly when the queen arrived to see if there were any dead bees in the cage.

In due time he replied that the queen arrived in splendid condition, and that there was not a dead bee in the cage.

Several times since then I have tried similar ways to see if such bees as had lost their stings were in any way inconvenienced thereby, and as far as I can tell, by means of confining them, so as to know that I have the same bee, I can see no difference between such bees and those which have their stings, as to length of life.

Whether they gather honey or not, or whether they are allowed to live in the hive without their weapon of defense is something which would be next, if not quite, impossible to tell, for in this case we have no means of keeping track of an individual bee.

As bees are not tolerated in the hive, which are in any way imperfect, it might not be unreasonable to suppose that the perfect ones might drive off such an one which had lost its sting, as being incapable of defense, were the hive attacked.

That it was not the design of nature for the bee to always lose its sting when defending its hive, is manifest where bees repel robbers to the extent of hundreds and thousands of slaughtered ones, when in such cases not one bee in one thousand loses its sting, but keeps it so that it can slaughter bee after bee till the attacking party is repelled, or they lose their lives in the combat. At times they do lose their stings in other bees, but not often.

Mistakes are made by everybody at sometime in their lives—for there are none "perfect." Mr. C. D. Duvall, of Maryland, writes of many mistakes made by bee-keepers, in the Maryland *Farmer*, in this language:

As Josh Billings says, "Eggsperience is a good skule, but the tuition is purty hi," but if we are careful and observing, we need not pay so dear for all our experience, but profit by the experience of others. This is not only true in bee-keeping, but in any other business.

One of the first, and a very common mistake beginners are liable to make, is in commencing with the wrong hive. I made this mistake and paid pretty dearly for it, too.

The first hive I bought was a "patent hive," that was no more fit to keep bees in than a nail-keg.

The second style of hive I bought was a decided improvement over the first, but with many faults and imperfections, but being inexperienced, I did not find this out until after I had made up a large supply.

The third style of hive I bought was the Simplicity-Langstroth hive, and it was the first practical hive I ever used, and it is the hive I am now using. Never make the mistake of buying or using hives except those that take some of "the standard frames."

I made a mistake in thinking I could make more money by rearing queens for sale, instead of honey-production.

I made a mistake in thinking that I could depend entirely on my bees for support, exclusive of any other business, by having several apiaries located at different places, but after buying out several bee-keepers' entire stock and fixtures, and running three apiaries for one year, I found it a very costly experiment, as I now have about twice the number of hives that I use, that I am getting no profit from.

It is a great mistake to keep too many bees; in this section of country one person should not keep over 75 colonies, and a small number will give a much better profit, and if properly cared for will prove as profitable as anything on the farm; but right here is where a great mistake is liable to occur, by wanting to increase too rapidly. In some sections of the country a large number of bees can be kept profitably, but not in Maryland, as the honey crop is too uncertain.

It is a great mistake to be too eager to increase the number of colonies, for the novice is almost sure to make a corresponding mistake by being disappointed, and becoming discouraged, and giving up the business before he has given it a fair trial. Better commence in a small way and let the colonies increase with your experience.

Japanese Buckwheat.—A Kern county (California) farmer who has been experimenting with Japanese buckwheat, reports that in all respects it is far superior to the American buckwheat. It produces twice the number of pounds to the acre, makes remarkably fine cakes, can be sown at any time, and he thinks will prove far more profitable than wheat to the farmers of California, if they can be induced to make a trial of it. It is also a good honey-producer.

An Elegantly Illustrated Monthly for the

FAMILY AND FIRESIDE,

Published at $1.50 a Year,

will be clubbed with the American Bee Journal and both mailed to any address in the United States and Canada, one year, for **$2.00.** This low rate will be extended to all those who have already paid for the Bee Journal for 1889. To such the Illustrated Home Journal will be sent one year for $1.00 extra. See page 269.

What the Other Periodicals Say of It:

"Gleanings in Bee Culture" says: "The Illustrated Home Journal is printed on nice calendered paper, and contains 36 pages, including a tinted cover. It is well illustrated, and the initial article is entitled "One Hundred Years a Nation," by the editor. Mr. Newman is a man acquainted with men and with the times, and the article is comprehensive and complete. We wish the publishers every success."

The *Canadian Bee Journal* has this to say: "The Illustrated Home Journal is a bright new monthly issued from the office of the AMERICAN BEE JOURNAL, Chicago, and edited by Mr. Thomas G. Newman. It contains interesting serial and short stories, is profusely illustrated with high-class engravings, and is packed from cover to cover with most readable and instructive literature. It is printed on high-grade paper in the best style of the art, and such a meritorious publication should find its way not only into every American home, but should circulate largely in the Dominion.

The *Bee-Keepers' Review* says: The Illustrated Home Journal is nicely printed on fine paper, and filled with choice miscellaneous matter, suitable for the family and fireside. We sincerely wish it prosperity.

The Illustrated Home Journal for April, 1889, has found its way to our editorial table. It has a neat appearance, is well edited, and would be a good addition to the list of reading matter in any home.—*New South.*

The Cedar Rapids (Iowa) "Times" remarks thus: "Our old-time citizen, Thomas G. Newman, the original projector of the Daily Republican, in connection with his son, has favored us with a copy of the Illustrated Home Journal, published by them, for April. This is indeed an attractive publication, and this April number is an exceedingly interesting one. The opening article is entitled "One Hundred Years a Nation." It is a most timely, appropriate, and instructive paper, replete with historical sketches, anecdotes, incidents, and illustrations connected with the birth of the nation, one hundred years ago. This number has 43 fine illustrations, ten illustrated articles, essays, historical sketches, music, and a great diversity of miscellaneous reading."

Never did the advent of a magazine for the family touch such a responsive chord, or receive such a hearty welcome.

Trial subscriptions will be taken 3 months for 40 cents each; or it will be clubbed with the BEE JOURNAL for a year at $2.00 for both. Agents, who are working for premiums, may take "trial subscriptions," and count 4 as one yearly subscriber. One sample copy sent free to subscribers of the BEE JOURNAL, upon application. That will tell you all about the "Premiums" offered for getting up clubs, and "Cash Prizes" for the largest clubs sent in before Sept. 30, 1889. "Good pay for good work" is our motto. See page 238.

Apiary of Walter Harmer.

The illustration on this page presents a view of the apiary of Mr. Walter Harmer, of Manistee, Mich., together with his small-fruit garden and poultry-yard, of which he has sent us a description, reading as follows :

Seven years ago my brother and I bought two acres of land in the suburbs of the city, and which was not fenced or cultivated, but covered with stumps and logs. The view looks south, away from the city, and the enclosure shows about two-thirds of one of the two acres mentioned above. All the buildings in sight (but two) have been built lately. The picture was taken by my brother last August, from the top of the fence on Eighth street, which runs east and west—west to Lake Michigan about 1¼ miles.

My apiary is on the left, as will be seen. Mr. A. I. Root, when on a visit here in the winter of 1887-88, pronounced my 38 colonies of bees in excellent condition. I believe that his words were, "I never saw bees in nicer condition in a cellar." They wintered well, but the following August (the time this picture was taken) found my apiary dwindled down to 18 colonies. I had sold only one that spring, but the season was the coldest and latest that I ever knew. In the fall I doubled 2 colonies back, making 16, which are in good condition to-day —April 3. I can sympathize with those bee-keepers who secured no increase and very little honey last season.

It will be seen that there are 40 8-frame Heddon-Langstroth hives out, for I had empty hives placed for the increase (that did not come), and are all sloping toward, and facing the east, but set with a spirit level, crosswise. They are painted red, white and blue, and were put out as follows : One red, one white, one blue ; one white, one red, one white, etc., one-half of them being white.

When I was putting the hives out in the spring, I thought, "What a nice name, 'Red, White and Blue' would be for an apiary ;" and in a day or two afterwards I was handed a card with the name, "The Red, White and Blue Apiary ;" and also on it the name of Geo. E. Hilton. Of course I gave up the idea of using that name, but I like it just as much, and I know that Mr. Hilton is capable of doing justice to any thing, or name, that he adopts.

I keep a brick on each hive, which helps to insure the bees against damage by wind.

Next will be seen a strawberry-patch, which I intend planting to raspberries, for I find that they pay me better in connection with poultry and bees, than do the strawberries.

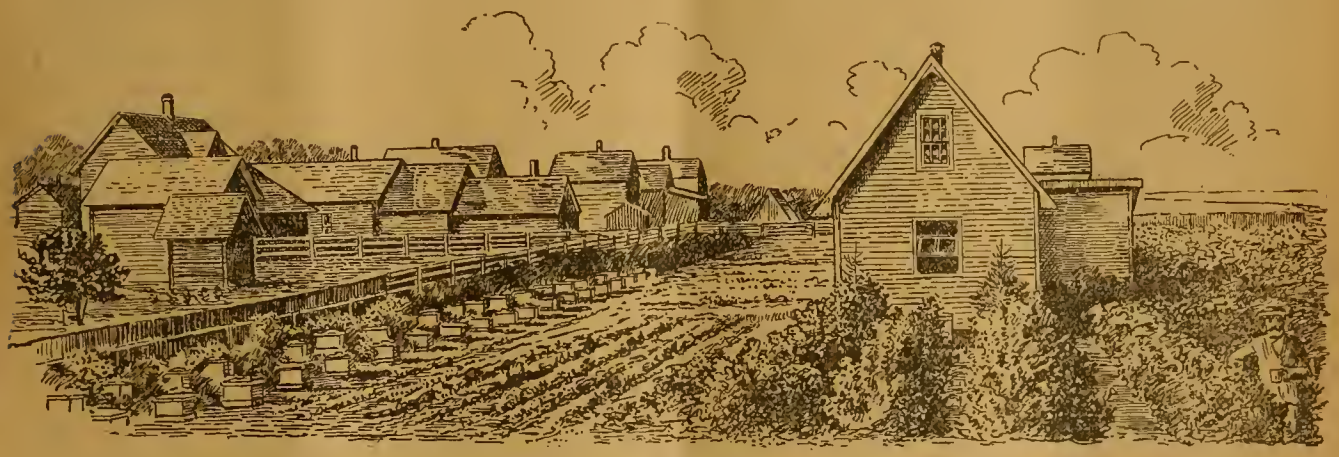
The three rows of bushes directly in front of the house are currants, the rows being about 90 feet long, and yielded 252 quarts of fruit last season. If what experience I have had is worth anything, I can strongly recommend the growing of currants, as well as raspberries, in connection with the keeping of bees and poultry. Every season's work seems to throw light in the direction of showing the numerous advantages in connecting these three branches of industry.

The bee-house, as I call it, is 12x24 feet, and the cellar will hold 100 colonies. The first floor consists of two rooms, one 8x12 feet, for a honey-room, or for anything to be kept from dust ; the rest is a work-shop, store-house, etc. The upstairs part gives a great deal of room for storing everything not in use at certain times of the year ; there is plenty of room to walk upright in it, the roof being steep ; and the rafters and roof-boards are dressed smooth, so it will be seen that this part of the building is exceedingly useful.

The windows work on a pivot in the centre, which makes them very convenient for letting out bees. There is a Root chaff-hive standing under the window, between the two balsam-trees. There was a great deal of ripe fruit on the bushes when the view was taken, and the writer is supposed to be busy gathering it, but in reality he is having his picture taken.

The little building at the rear of the bee-house is in size 13x20 feet, and will accommodate about 30 head of poultry; the main building is 23x50 feet, (not shown in the picture, being on the right hand side) and will accommodate 150 head more, which I think is enough to have on one acre. I have about one-fifth of the ground in grass, where the poultry must be contented for a week or two, while the fruit is being gathered.

I am rather discouraged in this locality for bee-keeping—my chosen pursuit. I can always get a good crop of fruit and eggs, as I have a sprinkler in connection with the City Water Works ; but for the production of honey we want a more genial climate, where a cold wind is not likely to blow from the large Northern Lakes (like Lake Michigan) for nine months in the year.



Apiary of Mr. Walter Harmer.

The Rev. Robert Collyer has given to Cornell University the factory bell which called him to work at 6 a. m. and sped him home at 8 p.m., when between 1831 and 1838, he was a factory operative in Fewston, Yorkshire, England. In his letter to President Adams, he says : "It will be pleasant to think of it as born again, converted and regenerate, now while the ages of Cornell endure, calling people to nobler occupations, and so much more welcome —a sweet bell, I hope ; not jangled out of tune and harsh."

QUERIES & REPLIES.

Amount of Stores Bees Consume in Winter.

Written for the American Bee Journal

Query 628.—During mild winters, will bees consume more stores than in cold winters?—New York.

Not so much.—J. M. HAMBAUGH.

Yes, sir!—WILL M. BARNUM.

Not in this State.—G. M. DOOLITTLE.

No; less, other things being equal.—R. L. TAYLOR.

It depends upon circumstances.—C. C. MILLER.

Usually, no; occasionally, yes.—J. M. SHUCK.

They will, in this climate (Georgia).—J. P. H. BROWN.

I can tell better in April, after weighing.—H. D. CUTTING.

Yes, if they fly every few days. Not in cellars.—C. H. DIBBERN.

Not unless they breed extraordinarily. Bees, without brood, consume most in cold weather.—DADANT & SON.

No, No! No!! Now some one will arise and dispute this; but still I say, No.—MRS. L. HARRISON.

Yes, if wintered on the summer stands. No, if in the cellar, when the temperature is kept right.—MAHALA B. CHADDOCK.

No, it is the excessive consumption of stores and long confinement that has caused the great mortality during the cold winters.—G. L. TINKER.

That will depend upon how mild, and how cold. The warmer it is, if not so warm as to disturb their "quiescent" condition, the less stores they will consume.—A. B. MASON.

Sometimes they will, and sometimes not. There are so many other factors to consider, that this question cannot be answered, yes or no.—J. E. POND.

If out-of-doors, I believe they would. If in-doors, in a proper temperature, I do not see why it should make any difference.—EUGENE SECOR.

No. The colder the winter, the more food is required. My observation teaches me that there is a decided difference in favor of a mild winter.—M. MAHIN.

Yes, if more active. It all depends upon the activity of the bees. Bees may be irritated and active in the cellar. They are in mine, when the temperature gets below 35°,F.—A. J. COOK

In the climate of Kentucky, where I am located, they do not, unless they commence to breed earlier, on account of the mildness of the winter and forwardness of the spring, in which case the stores are profitably consumed.—G. W. DEMAREE.

Much depends upon their quietude, and whether the bees are wintered in the cellar or on the summer stands. The question cannot be answered in one word.—THE EDITOR.

The Terms When Keeping Bees on Shares.

Written for the American Bee Journal

Query 629.—1. I have some bees out on shares, and I furnish all the Langstroth hives, sections, crates, etc. I am to receive one-half of the honey and increase of bees, and the other party is to pay for his share of the hives, sections, crates, etc. What is a fair price to value them at? 2. I would like to know the usual terms when putting bees out on shares.—Virginia.

Your terms are all right.—WILL M. BARNUM.

I am not prepared to answer either of the above questions.—M. MAHIN.

1. *Your market* price. 2. I think that you have about the fair and square plan.—A. J. COOK.

1. Whatever they cost. 2. I do not know. But my terms would be, "Keep them at home."—EUGENE SECOR.

1. Whatever can be agreed upon. 2. About as you have given.—G. M. DOOLITTLE.

The "fair price" would depend upon what they originally cost, with the "wear and tear" deducted.—J. P. H. BROWN.

1. You should be able to judge that better than I. 2. The terms vary greatly, but the result is generally dissatisfaction.—H. D. CUTTING.

I give it up, and will let others who have had experience, answer it.—C. H. DIBBERN.

1. What they would cost the party, if he obtained them from a supply dealer. 2. I think that your agreement is about right.—MRS. L. HARRISON.

I would not put them out on shares, and the querist will not do so, after he has once tried it. They should be valued at what they will sell for at the time of invoice.—J. M. SHUCK.

1. Much depends. What would be fair with me, might not be fair with you. 2. I have never put bees out on shares.—J. M. HAMBAUGH.

1. At the usual cost of such goods. 2. The terms stated I believe to be fair to both parties, and are the terms usually given in putting out bees on shares.—G. L. TINKER.

1. If I understand the question, you want to know what he should pay for his share of the hives, sections, crates, etc. Why not value them at their actual cost? 2. They are about as various as the number of cases.—C. C. MILLER.

1. Consult some good price-list issued by some responsible supply dealer; this will enable you to fix a price that will be just and fair. 2. There are too many things "depending," to give a general answer to this part of the query.—G. W. DEMAREE.

1. This question cannot be satisfactorily answered, in my judgment, by any one. 2. Some one must answer who has had experience. I think, however, that it would require years to solve the problem.—J. E. POND.

I do not know that I understand your question. I should suppose they would be valued at the same price as they would had, you not put them out on shares, and that price would depend upon the market in your locality.—R. L. TAYLOR.

1. Just what they are worth, and that depends upon the style of hives, sections, crates, etc.; whether old or new, and how far from where such could be bought, etc. 2. In this locality (Toledo, O.) one furnishes the bees and the hives they are in, and the other takes care of them. Each is to half the expense of extra hives, supers, sections and crates, etc., and each has half of the increase in bees and half the surplus.—A. B. MASON.

1. The value of the hives, sections, crates, etc., should be just what they cost, including freight, if unused. If used, deduct "for wear and tear." 2. Your "terms" are about right, but be sure to have every detail in writing, for the usual outcome of such transactions is dissatisfaction, especially on verbal contracts.—THE EDITOR.

Convention Notices.

☞ There will be a meeting of the Susquehanna County Bee-Keepers' Association at Tarbell House in Montrose, Pa., on Saturday, May 4, 1889, at 10 a.m.
H. M. SEELEY, *Sec.*

☞ The second meeting of the York and Cumberland Bee-Keepers' Association will be held in the Good Templar Hall, at South Waterboro, Maine, on May 15, 1889, at 9:30 a.m. A cordial invitation is extended to all. Matters of interest will be discussed. Bring your hive or some useful implement for exhibition. Hotel accommodations may be had in the village at reasonable rates. C. W. COSTELLOW, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Brantford, Ont., Canada.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

CORRESPONDENCE.

MY SWEETHEART.

Written for the American Bee Journal

BY EUGENE SECOR.

My Love is fair,
With golden hair,
And eyes that shame the heavenly blue;
And I am sure,
If you but knew her,
That you'd admire and love her too.

Her artless smile
Doth oft beguile
The weary hours of toil and care;
And bliss is found
When she's around—
My happy dove, so sweet and fair!

Her hands are small,
And plump withal,
Her feet, as dainty as a flower.
Her perfect nose
No envy shows—
Her talk, refreshing as a shower.

Such teeth of pearl
No other girl
In all the wide, wide world can show;
The breath of June
Is hers, and soon
Its fragrance-laden warmth I'll know.

The bee ne'er sips
From lily lips
A sweeter draught than I from hers.
Her merry laugh
Is better by half
Than any potion the doctor "stirs."

Fond Hope's bright gleam!
A stray sunbeam
To cheer my heart when I am sad!
A happy sprite
To illume the night
Of discontent, and make me glad!

I hope some day,
Some morn in May,
When tulips plight their faith and wed,
That she'll redeem
My fondest dream,
When to Love's willing altar led.

Who is my Love?
My pure, sweet dove
That Tempts the Muse her charms to sing?
Now you'll not tell,
But keep it well?
Her name is—Baby—*our wee thing.*

Forest City, Iowa.

TRANSFERRING.

How to Transfer, Italianize, and Increase Bees, Etc.

Written for the American Bee Journal

BY DR. C. C. MILLER.

The following letter was sent to me to answer in the AMERICAN BEE JOURNAL:

I have 8 colonies of German bees in box-hives, and have adopted the Iowa tiering-hive. I wish to transfer, Italianize, and increase my colonies, and at the same time secure all the comb honey that I can. I have no practical experience except with bees in box-hives, and wish to know the best time to begin, and how to proceed.—J. B., Missouri.

I am not sure what the "Iowa tiering hive" is, but I suppose that it is some good hive embodying the principles of the Langstroth. The old way to transfer is to cut out the combs about the time of fruit-bloom, and fasten them in the frames. Mr. Hedden has given us the plan of waiting till later, driving out enough bees with the queen to make a good swarm, and then, 21 days later, driving out the balance of the bees. As you want to get all the comb honey possible, and, moreover, have no experience with bees in movable-frame hives, it may not be the best way for you to try to make an entire change to Italians the first season.

About the time that bees begin to swarm, is a good time to operate. If you could hit upon the time *just before* queen-cells were started preparatory to swarming, that might be best. Turn the box-hive upside down, and over it place almost any kind of a box, so arranged that the bees can pass up into it, closing up any holes out of which the bees might fly. No great harm, however, will come from letting a few bees get out, and, indeed, after the driving has fairly commenced, they will not be likely to fly out, even if the opportunity is given.

Now with a stick of wood, hammer with some vigor, for a few minutes on the side of the hive. After waiting a few minutes to let the bees fill themselves, jar the hive again, and continue until most of the bees are in the driving-box, being sure to leave enough to protect the brood left in the old hive.

This driving will probably be done close by the old stand, upon which may be placed the new hive with movable frames partly or wholly filled with foundation.

The bees in the driving-box may now be poured down in front of the new hive, and allowed to run in, and the box-hive placed upon a new stand several feet away. You now have a strong swarm of bees with the old queen in the new hive on the old stand, and this may be counted on for good work on surplus, if the season is favorable.

About ten days later, drive out the bees again, as clean as you can, from the box-hive, in the same way as before. Then cut out the combs of the old hive, and save all those that contain worker-brood—and you will readily distinguish the worker from the drone brood by its smaller size. The worker-brood is also sealed over flatter than the drone-brood, and at this time you will probably find all the brood sealed. Fasten this comb containing brood in the frames, *cutting out all queen-cells*, and the balance of the combs may be melted up, or used as you think best.

If you care to take the trouble, you fasten in the frames all the straight worker-comb to be found, although, if full of honey, it is a mussy job to do anything with it.

Having put these frames into the new hive placed on the stand which the box-hive has occupied for the last ten days, run the bees out of the driving-box into the new hive, and drop among them the Italian queen, as they are running in. This queen you will have obtained in advance, and if you think best to have eight Italian queens, you will probably get what are called "dollar queens"—that is, fertile queens reared from pure Italian mothers, and you run your own risk as to whether they are purely mated.

In this way you have done nothing to lessen your chances for a crop of honey; half your colonies have Italian queens, and the next season, having all movable frames, you will have no great difficulty in Italianizing the rest.

Very likely some who have had more experience in this particular line, may make suggestions as to what may be done to improve the plan that I have here given.

Marengo, Ills.

A LECTURE.

Delivered at the Farmers' Institute at Bluffton, O.

BY JUDGE RICHIE.

I see by the programme that I am expected to talk on bee-culture. I presume that the committee recognizes the fact that every man has his hobby, or as some put it—every man is insane on some subject—when they selected me to talk on bee-culture.

The introduction of the movable comb hive and the Italian honey-bee has made apiculture practical, pleasant, and profitable. The movable hive enabled the operator to ascertain the exact condition of the colony at any time when the temperature will admit of opening the hive.

The Italian bee, unlike either of the native varieties, if not naturally so, has become thoroughly domesticated, and may be handled with ease without disturbing their equanimity or ruffling their temper. Not unfrequently have I taken a comb from a hive in which the queen was depositing eggs, and so little were they disturbed that the queen kept on laying while the comb was outside the hive, and the bees seemed not to be disturbed in the least in their labor.

* * * * * *

There is that in bee-keeping which should make it attractive, aside from the profit derived from its pursuit. Who can watch without interest the little pilgrims as they go forth in quest

of honey to store away for their successors to winter upon, long after they have died from exhaustion, or become food for the rapacious spider?

How strange the sight, when the old queen and almost the entire colony, without any apparent regret, leave the old home with all its stores of honey; its young, a part of which are but just cradled, and a portion wrapped in their night blankets, to sleep until they are old enough to take their place in the colony as nurse-bees, and go forth to form a new colony in a new home, with no capital save the energy of the army of little workers.

How strange that these little insects should know just how to build their combs, of just the shape which science has demonstrated affords the most room, while it affords the greatest possible strength, and with a mathematical precision that is unsurpassed by human skill; that they should know when it is necessary to rear a young queen, the kind of food that should be furnished for her full development, and how much room she must have to grow in! And a hundred curious things you see by studying the nature and characteristics or the honey-bee.

The caprice of the little creature is nowhere more fully proved than by the finding of a swarm in the carcass of the lion which Samson killed. Many are the curious freaks of this queer little insect, about the habits and needs of which too little is known. No more interesting subject for the study of the naturalist, especially if his beeship should take a notion to point the investigation, and "sit down" on the investigator.

Primitive bee-keeping was rude in its inception, and barbarous in its prosecution. The poor little insects were housed in a hollow-log or an inverted straw-basket, and left to shift for themselves; and failing to find an abundant store of supplies for the winter, they were doomed, if not to a "lake of fire and brimstone," at least to the fumes of combustion, that the proceeds of their toil might be enjoyed by others, who labored not for it. If the colony escaped the brimstone process, it was left to battle with the frosts of a long, dreary winter, upon the summer stand, unsheltered and uncared for.

Nor was the avarice of man and the severity of winter the only enemies of the little honey-gatherer, for its home was invaded by the bee-moth in summer, and by the rapacious mouse in winter, which burrowed and built its nest within the hive, while it fattened upon the honey and honey-gatherer. But the invasion of the mouse was the result of the grossest carelessness on the part of the bee-keeper, while the ravages of the bee-moth seemed to long baffle the skill and ingenuity of the apiarist.

Scarcely a farmer present who has not seen a "moth-proof" bee-hive, and listened to the lingo of the vender, who knew as much about bee-culture as a Digger Indian does of mental philosophy; and ninety-nine times out of a hundred the "moth-proof" hive was a grand success, for it housed the bees, if you ever got them into it, until the moth could hatch in sufficient numbers to devour both bees and honey.

The bee-moth is a sort of anarchist, and insists upon a division of capital, and is especially opposed to the accumulation of large stores of honey, unless she is let in for her full share; and her wages for a time seemed to permanently endanger profitable bee-culture, as our native bee seems powerless to repel the insidious attacks of this insidious pest.

But the Italian bee, though of foreign extraction (like unto most Americans), seems to have adopted American ideas, and is disposed to, and does, administer summary justice on every intruder of the moth-family upon the apparent motto, "Let no guilty one escape." So that, instead of resorting to any moth-catching process, all you want to insure against the moth-incursions is, a simple common-sense hive, and a vigorous, healthy colony of pure Italian bees.

There seems to be about as much difference in the disposition and intelligence of the different varieties of bees as there is in the different races of men; and of the varieties known here the Italian has the decided preference; although the large gray bee, sometimes called the German bee, is by no means without its very good qualities. But of all the varieties none equal the genuine native black bee. The real little Ethiopian, so inquisitive in its nature, and always at leisure, you have no trouble in becoming acquainted, getting on familiar terms without the formality of an introduction. Ever on the alert, you can scarcely come within ear-shot of a colony of this variety, until you are met by from one to a dozen of the little "darlings," each one so anxious to peep into your eyes, and, embracing the first opportunity, to nestle in your hair.

But attempt to manipulate a hive of this variety, and it is remarkable how quickly they impress you with the conviction that they are true Americans—even if they are a little "off color,"—by their ability to "repel invasions from abroad," while of you they make a second Arnold Winkelried.

Let bee-keeping once become thoroughly understood, and honey will be found on every table—even the sting of the bee will be utilized by our physicians as an antidote for rheumatism—and beeswax will be so abundant that, lacking a better use, it will be converted into "nice white wax," or to some other equally beneficent purpose.

EXPERIMENTS.

Small Loss in Weight—Hibernation and Ventilation.

Written for the American Bee Journal

BY EUGENE SECOR.

It is an old story to tell how the bees have wintered, but as I have tried some (to me) new experiments, it may be interesting to record them.

I began carrying the bees into the cellar on Oct. 19, 1888, and on Nov. 9 I finished the job. They were housed, as usual, in the cellar under the house where we live. Forty-five colonies was the number stored. The weather was beautiful, and continued so till after the holidays—indeed the whole winter was as mild as Texas, and bees could have flown, probably, every week from October until April.

Before cellaring them, I weighed every colony. On April 4, 1889, I began removing them from the cellar, and finished on April 10. I weighed all the colonies as they were taken out. I lost two, which were probably queenless in the fall. The shrinkage for the remainder was from 3 to 20 pounds—average loss, 10 pounds. The average number of days confined was 157.

The cellar was almost too warm, all winter, being difficult to keep the temperature below 50°, Fahr. A 6-inch sub-earth ventilator of common tile has its upper outlet in the bee-room, and its lower about 100 feet from the house, running under ground from 2 to 6 feet deep.

The bees came out in good condition, and it now looks as though I should not lose any in "springing" them. The colony that lost only 3 pounds was so quiet when removed, that the boys said they thought it must be dead, as it had not "waked up" when all the others were basking in the sunshine. To learn the facts, I took off the cover, and found a nice colony elevating their *hinder reminders* just as they do on a frosty morning in the fall, when the cover is suddenly removed. Let me see, who was it that said, "Bees never hibernate?" Perhaps he meant "hardly ever."

Hive-Ventilation in Winter.

Now in regard to ventilation: When taking the bees into the cellar I neglected to remove the entrance-blocks from two or three hives, as is my usual

custom; and in these was a mass of dead, moldy bees, clogging the entrance and obstructing the passage-ways between the combs. In a repository so warm as mine was, it would, unquestionably, be better to have ample ventilation below, at least.

Forest City, Iowa, April 20, 1889.

PREMIUMS.

Illinois State Fair Still Behind the Times.

Written for the Prairie Farmer
BY MRS. L. HARRISON.

The Illinois State Board of Agriculture met in Peoria a short time ago to make arrangements for the coming State Fair. I embraced the opportunity of going before this body to speak a good word for the busy bees.

I was cordially received, especially by Mr. Skeavington, superintendent of farm-products and pantry-stores. He said that it was an industry that ought to be encouraged, but that many members of the board were so interested in horses that they could not see it. He said that one of his neighbors, a sickly woman, was told by her physician that she must exercise in the open air a great deal, so she engaged in bee-culture, and from her small apiary of 25 colonies, one year she realized over $300. It was too late now, however, to make any changes in the premium list, as it was in the hands of the printer, but they would try to do more for us another year.

Mr. Skeavington seemed to think that it was an industry especially adapted to women, as they needed exercise in the open air to keep them in good health, and said his wife was quite interested in it.

One year I wrote to the Secretary of the State Board, complaining of the small favors to bee-keepers, and he said, "It is your own fault. Why don't you come to Springfield, lay in your claims, and represent your interests to the Board while in session?" This is no doubt true, and we should not grumble when we neglect our own interests. I shall do my level best this year to "lobby" for the busy bee, and with what success, time alone will tell. Illinois is far in the rear with her honey exhibits in comparison with some other States, while she is second, if not first, in honey-production. Let us arouse from our lethargy, gird on our armor, and show to the world what the great State of Illinois is capable of producing in choicest sweet. With this end in view, let one and all work with a will, and assist our busy workers in every possible way.

Those who expect to win the blue in the fall, in this State or any other, should be up and doing. If the premium lists are not already in the hands of the printer, see how they read. The premium list for the Illinois State fair of last year reads: "Largest and best display of comb honey, $5.00." Tell it not in Gath, neither in the streets of Askelon, lest the buckeyes, badgers and wolverines of the neighboring States rejoice. The premium should be, rather, on the best honey, *in the best marketable shape*.

Years ago, when the State Fair met at Peoria, the first premium on comb honey was awarded to a large glass vessel of comb honey, that had taken the bees two years to fill; consequently much of it was tough and discolored. I suppose it was given the blue on account of its novelty. Choice comb honey in sections, in the *best marketable shape*, could not be seen, whilst it was in the *foreground*. The first premium on extracted honey was given to a two-quart jar of *strained* honey. The woman who exhibited it, said, "I don't know what makes it look so cloudy; it was nice honey before I strained it through the cloth." In competition with this jar was a gross of Muth's one-pound honey-jars, filled with the choicest white clover honey, tin-foiled and labeled.

Who should be a judge of honey, bees, or supplies? Should he be a breeder of Normans, Holsteins, Essex pigs, South Downs, or of Bronze turkeys, pigeons, dogs or ferrets; or one whose bread and butter depends upon the little busy bee's work? Producers of honey, and dealers in the same, ought to know something of that commodity. A carpenter would be a poor judge of a bee-hive, though he could tell which was made the best.

I have seen hives at fairs which drew large crowds— and their glib exhibitor claimed that they were one of the greatest inventions of the nineteenth century—that an intelligent bee-keeper would not tolerate in his yard; hives with cunning little drawers —and how the glib exhibitor pulled them in and out, showing them to his delighted audience. A bee-keeper would know at first glance that when the hive was occupied with bees, those cute little drawers would be propolized so tightly that no power could get them out, except chopping the hive to pieces.

A judge of bees ought to be some one who has reared winged stock. How would the breeders of horses and cattle like Mrs. Harrison for a judge of their stock? They would soon say that she might be a good judge of babies, bread, pickles, and sauerkraut, but what could she know of the good points of a horse?

WINTERING.

Attending College and to Bees at the Same Time.

Written for the American Bee Journal
BY ALLEN LATHAM.

All the past winter I was intending to write some articles stating some of my ideas on wintering, fall honey, pollen, etc., but I never found the time to do so. Perhaps some one would ask, "How can you attend College and take care of 30 colonies of bees at the same time?" That was a problem which I had to settle, and I believe that I have settled it. I think, by using a non-swarming plan, and a few days out of my college hours, I can run the apiary also, when college is out, by June 20, which enables me to keep the busy colonies straight.

The Wintering Problem.

So many bee-keepers are still speaking about the "wintering problem," but I left that three years ago. It may look presumptuous in me to say that I have mastered the problem, but until I lose a few colonies, I shall still claim to have done so. I settled on a plan of wintering bees four years ago, and I have not lost a colony in wintering since that time. One of my neighbors adopted my plan, and has lost 3 colonies; but each case was one of *starvation*, and so must be ruled out.

Last fall I put my 20 colonies of bees into winter quarters, and left them, to go to my studies. The past week, when I was at home, they were "booming"—not a colony having been lost. I hope, before next fall, to put my method before the eyes of American bee-keepers in other words in the columns of the AMERICAN BEE JOURNAL; and thus let it be tried. I claim that there is no more need of losing bees in the winter, than of losing a horse—nor, indeed, so much need.

Combs Filled with Pollen.

About combs getting filled with pollen: When I began bee-keeping, I used to lament about having the combs filled with pollen; but now, when I find a comb packed with pollen, I say: "Won't that be a fine start for some weak colony next spring?"

The Amount of Winter Stores.

Mr. Pond, on page 250, says that a ten-frame hive is none too large when the colony is expected to store its winter food. In Lancaster, where I keep my bees, asters and golden-rod furnish the winter food for the bees, and at that time of the year, I do not want more than four frames of brood. No colony ought to eat more than 5 pounds

of honey, from the middle of October to the middle of March; and unless a person dislikes to disturb his bees in early spring, 15 pounds furnish a great plenty. I consider one of my colonies well supplied, when it has four frames a little more than half filled.

I am aware that when bees are put on short stores, spring replenishing is necessary. But are all aware of the benefit of spring feeding, where apple-blossom honey is desired?

Two weeks ago I put into each of my hives, two combs well filled with good, thick syrup, made from white sugar. Each hive warmed right up, and began to breed heavily. Apple-trees will be blossoming shortly, and then we will see if the 125 pounds of sugar that I fed, are not returned.

Cambridge, Mass., April 19, 1889.

EVOLUTION.

A Discussion of the Dzierzon Parthenogenesis Theory.

Written for the American Bee Journal

BY J. F. LATHAM.

Dr. C. C. Miller prefaces his strictures on my article on page 168 with an apparent misrepresentation; and seems to relish dealing in irrelevancy throughout his discourse, if I rightly construe it.

Notwithstanding the cautionary remarks of the editor, on page 198, at the close of the Doctor's article, I now would ask indulgence for a few remarks in response. If I am mistaken in regard to misrepresentation, I must acknowledge, with the doctor, that I am not scholar enough to understand his language, unless he surmises that I am hinting at the quality of queens from the egg, and queens from the larvæ. That was not the object of the first sentence in my article; but as my attention has been drawn to it by the doctor, I am more than willing to admit that "some instruction" might emanate therefrom.

With reference to the demure profession of inability to understand what I say; and the further modest desire for an interpretation in "plain English," candor prompts me to admit that I think the Doctor's perch is too elevated for his vision.

In his second paragraph, the Doctor asks, "What are the points in it that we are to know, to enable us to rear better queens?" As he has failed to profit by "instructions," I can only answer candidly, that is what I would like to know! But I *believe* the best queens are reared from the egg, during he swarming impulse, or soon after.

The doctor next takes a "round" with atrophied (food) glands, and parthenogenesis, and asks, "Now are we to understand that Dzierzon is all wrong, and that parthenogenesis, at its present stage of development, is not a very substantial reality?" etc. Yes; the hatching of an egg laid by a virgin queen *is* a reality; but from my diagnostic stand-point, the *substantiality* of the *reality* exists in its procreative value. If the existence of atrophied (food) glands in the queen-bee are conclusive evidence that at one period during the development of her species the requirements of mother and nurse devolved upon her, as specific duties in the perpetuation of her kind; while at the present time, the progeny of an unfecundated queen are represented in what I believe to be useless drones; the relative merits of the former and latter qualifications seem to be too well established to admit a radical response to the Doctor's query.

My experience warrants me in saying that Dzierzon is all right in teaching that the eggs of a virgin queen will hatch, and result in the production of drones only; but at this point in the economy of Nature, so far as I have been able to note, the procreative functions of the queen and progeny terminate, inclusively.

Here I would like to ask, if what is termed Dzierzon's theory, *i. e.*, parthenogenesis, was an original demonstration by Dzierzon. I have reason to think that the Dzierzon theory, so-called, was not original with Dzierzon, from the fact that glimpses of the idea crop out in writings that existed long before the race from which Dzierzon sprung, were known in history.

In his third paragraph, the Doctor again puts in the plea of inability to understand, and unburdens himself of what appears to be a misconstruction. Perhaps I have read the Bible as much as the Doctor, and my faith in the credibility of its teachings may be as genuine as his, also; but I have no recollections of having read a single passage in it in which it is purported that any part was drawn from Acadian and Turanian sources; and this is the first time that I have ever received an intimation that anyone believed, or taught, that the Bible, in specific terms, signifies that any of its contents were drawn from Acadian and Turanian sources. But I cannot comprehend why the records of events, which modern archæological research discloses to have existed in written narrative, ages prior to their compilement into the book of Genesis, should be any less a "direct revelation from God Himself," than after the narrative had been so compiled. If the attributes of the Deity are not omniscient, the idea of revelation, special and specific, might be readily comprehended, and easily reconcilable to the limits of a special providence.

There are many things in the open book of Nature, and signally so, in a colony of bees, when in the enjoyment of health and activity, that should prompt an observing mind to the fact that the visible is but a mirror of the invisible, and that the God of the Universe cannot be contracted to the limits of particularized environments. As the Doctor seems to not agree with me on this point, let us "agree to disagree," and drop the matter.

That there "are men who do not believe in the Bible as a Divine revelation," I have also long known; but from long association and dealing with those men, I am prone to the belief that they fill their place in the world as reputably as, what is termed, the best of those who *do* believe in "Divine revelation;" and would scorn to injure the most hapless of God's creatures, or cheat a fellow bee-keeper in the quality of his supplies—knowingly sell him a colony of bees infected with foul brood, or create a demand on his purse by recommending fallacies in his pursuit.

In his fourth paragraph, the Doctor inquires where those Acadian and Turanian records were, prior to their compilation in the book of Genesis. I am very willing that the Doctor should solve the problem himself, for I entertain no doubts but that he will find the task a pleasant and instructive one.

The last two paragraphs of the Doctor's article hardly merit a passing notice; but as I have no desire to falsify anything, or wound the sensibilities of any one, much less the contributors to, and readers of, the AMERICAN BEE JOURNAL, I will try to meet his asperity as succinctly as I can. In assigning a signification to the word "purported," the Doctor has my free consent to define it as he pleases; but to the candid readers of the BEE JOURNAL I will say, that I used the word only to express explanation, or signification. If my information is correct (and I have no reason to doubt its veracity), there exists in the lately-deciphered literature of the Assyrians, a narrative of the "creation," the Paradise, the flaming sword, the cherubim, the flood, the ark, the Tower of Babel, the dispersion, etc., which is purported, in my same information, to have been translated from the Acadian and Turanian dialects, or languages in which it existed as an epic, and had so existed 2,000 or more years B. C.

From the above date it is quite certain that the narrative of the "creation" was not original with Moses, or the Hebrew race; nor was it made a

part of the book of Genesis until after the Babylonian captivity. Now, Doctor, you have my position, in connection with the word "purported," as plainly as I can give it, and if my comprehension of the "Revealed will of God" does not assimilate with yours, I can see no reason why either of us can be blamed.

I also do not consider the pages of the AMERICAN BEE JOURNAL the proper place for "religious discussions." It was not with the intent to provoke "religious discussion," that my article on page 168 was framed as it is; nor does it contain a single phrase that can be construed with that import. What I drew from the book of Genesis was used to form a connection, of ancient modes of expression, with modern expressions in the teachings of geology, as comprehended in evolution, as I understand it; and if there are any in the ranks of the bee-keepers who cannot comprehend, intelligently, such a connection, but view its consummation with the holy horror of religious "cant," it seems reasonable that others who can should be allowed their privileges.

The expression in the closing sentence of the Doctor's article, viz.—"And when he goes out of his way to lug in to a parenthesis a fling at that which we should hold sacred," etc., looks, if I may be allowed the use of a very inelegant "Yankeeism," a "lee-t-l-e soft;" but if there *are* any in the bee-keeping fraternity, within the limits of the BEE JOURNAL'S circulation, who have been reduced to a state of commiseration by my depravity, I most respectfully solicit their leniency; and, if the Doctor feels that he can so condescend, I think it a duty incumbent upon him to do the same, for going "out of his way to lug into" his article "flings" and delusive allusions, misleading in their import, and absolutely uncalled for.

Cumberland, Me.

[A short reply from Dr. Miller will end this controversy in the BEE JOURNAL. It is uninteresting to the general reader.—ED.]

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

May 4.—Susquehanna County, at Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 15.—York and Cumberland, at Waterboro, Me.
C. W. Costellow, Sec., Waterboro, Me.

May 21.—Northern Illinois, at Pecatonica, Ill.
D. A. Fuller, Sec., Cherry Valley, Ills.

Dec. 4, 6.—International, at Brantford, Ont., Canada.
R. F. Holtermann, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Bountiful Season Anticipated.—W. J. Cullinan, Kansas City, Mo., on April 15, 1889, says:

The white clover here is in excellent condition, and I anticipate a bountiful season. There are the best prospects for peaches for many years. I expect to go to Quincy, Ills., soon, to take charge of the apiary of the late Mr. C. H. Smith, whose demise was chronicled on page 179.

Horse-Mint Looks Promising.—J. N. Colwick, Norse, Texas, on April 15, 1889, says:

My bees are swarming, having commenced on April 2. I am expecting a good honey-crop, as I see that horse-mint is growing finely, and the crops in general look promising.

Killing off Drones, etc.—C. P. Hehry, Blooming Grove, Tex., on April 18, 1889, writes:

I began bee-keeping in 1888 with 2 colonies, and on examination I found one queenless. This being my first attempt at bee-culture, I was entirely at a loss as to what to do, and so I came very nearly losing the colony. I noticed that the strong colony was continually killing off bees, and I did not understand this—I supposed they were without stores; but I learned later on, that the queenless colony was trying to unite with them. After losing nearly all the weak ones, I learned that if a frame were given to them from the colony that had a queen, supplied with young brood, they would rear a queen. I gave it to them, and they started to work at once, and increased to a thriving colony in a very short time. I have increased my number to 6 colonies, and as it is very early in the season, I may yet have more increase. I have tried dividing colonies for increase and profit, and I find it a satisfactory plan. We do not need to put our bees into cellars in this latitude, as they do well on the summer stands, flying nicely all through early spring. When a lad, I dreaded bee-stings terribly, but now they do not have much effect on my flesh—something like a mosquito bite. A few days ago one of my colonies was killing off drones. I cannot account for it at this season of the year. Will some one please explain it? The AMERICAN BEE JOURNAL is a welcome visitor, and I could hardly do without it.

Results of Wintering.—John H. Guenther, Theresa, Wis., on April 12, 1889, says:

I put 40 colonies into the cellar last fall, and left 12 packed on the summer stands for trial. All except one that was queenless came out of the cellar alive this spring; but of those that were out I lost one colony from diarrhea, and the 11 colonies remaining have no more bees than 6 that came out of the cellar. The first natural pollen was gathered on March 16, and the first honey on April 8 from elm. In order to keep bees quiet for five months in the cellar, the ventilation must be right. Where all upward ventilation is stopped, I cannot keep them quiet. I have quilts on top, and in 48 hours after being put in, the covers will be wet. I have the hive-entrances open the same as in summer. The temperature for five months averaged 46°, and never was lower than 42°. The average loss in weight was 8 pounds per colony.

Producing Comb Honey.—John A. King, Mankato, Minn., writes:

On July 2, 1886, 2 or 3 swarms united, an unsuccessful attempt having been made early in the day to hive them separately. A greater question perhaps has not been offered, than how to work colonies in order to get the greatest amount of comb honey. Shall we tier up 4 or 5 **T** supers, and oblige the bees to go through a queen-excluding honey-board? My opinion would be adverse to this, and I can only tell just what I did do. Basswood had been in bloom a few days, and the rush was on. There were bees to fill over 100 one-pound sections all at once, just as quickly as they would fill 50 sections, provided that they have ample passage-ways to get into them. The hive and surplus arrangement were up to the very wants required. The hive was a full 2-story Doolittle hive, 24 inches long, 13 inches wide below the rabbets, and 10½ inches deep.

Nine brood-frames, including the two thin partitions, formed a square of 14 inches, with 5 inches across each end for surplus. I make a case holding 6 sections for the ends, tiering up 4 cases high. Another case holding 7 sections, and 6 cases being used, will just fill the space over the brood-frames, and between the end cases; 48 section in the ends, horizontal to and above the brood, and 42 sections being directly over the brood-frames. The sections are 5x4⅛x1⅞ inches, 6 of which weigh 7 pounds. Here is a very solid fact: Fifty-six pounds along side of that theoretical view, that bees work best over the brood. But see, the bees slide right and left like a base-ball player to the goal, under the thin partition into the first case, or climb up on the side of the hive and enter the second, third or fourth case, or at the ends of the 6 cases over the brood-frames, thus having access to every section from the ends of the hive. Every section was well finished, and taken off in a pile (105 pounds) just before all the white was changed to yellow at the close of July. I had other colonies with as good results, but they had more time.

Priority Right to Keep Bees.

—J. A. Proctor, M. D., of Union City, Ind., writes:

In his article on page 217, Mr. Pettit seems to think that our Constitution is not right, where it says that all men are born equal, and shall have the right of life, liberty, and the pursuits of happiness. It looks very strange to me, when I hear a man reason so inconsistently. If Mr. P's logic is true, when a man buys a farm and commences to raise corn, cattle, hogs, poultry, no other man should be allowed to come near him, and do the same. The idea of a man who keeps bees, and is making money, and his poor neighbor with his wife and little children must be prohibited from keeping bees that they might have some of their sweets, because the other man was in the business first, and there should be a law to prohibit him! "Oh, consistency, thou art a jewel." Why, it would be a usurpation of the right that our Constitution guaranteed to him! Mr. P's heart goes out in sympathy for the man that first kept bees, and so it must for the man that located the first farm, and first commenced to raise corn and stock. What a tender heart Mr. P. must have, for the prior man! I have read all of the discussions on this subject, but I never saw any foundation for them.

Subscribers who do not receive this paper promptly, will please notify us at once.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of of any other papers. Send for such to the publishers of the papers you want.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Triple Lense Magnifiers have been so often called for that we have concluded to keep them in stock for our subscribers to inspect bees, insects, etc. See page 212.

Price, by mail, 80 cts.; or the BEE JOURNAL one year, and the Magnifier, for $1.50.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

DORÉ ART PORTFOLIO,

PRICE, 50 CENTS,

Will be CLUBBED with the AMERICAN BEE JOURNAL, at the low price of $1.25, postpaid.

This magnificent Art Portfolio is in size just 11x14 inches, and besides a picture of Gustav Dore, the great French Artist, it contains the following beautiful engravings: Expulsion from the Garden of Eden—Entering the Ark—Noah Cursing Ham—Samson and Delilah—Ruth and Boaz—Death of Saul—The Judgment of Solomon—Daniel in the Lion's Den—Daniel Confounding the Priests of Baal—The Nativity—Christ Healing the Sick—Sermon on the Mount—The Disciples Plucking Corn on the Sabbath—Jesus Walking on the Water—The Agony in the Garden—Death of the Pale Horse. Seventeen handsome full page plates under one cover.

Honey and Beeswax Market.

HONEY.—We quote: White 1-lbs. 15@16c.; fall or dark, slow at 12c.; 2 lb. California white, 13@14c.; amber 11@12c. Extracted, in 60-lb. cans, 7½@8c; for white, 7@7½c.; for amber, in barrels or kegs, 5@6c. We think that our market will be cleaned up before new honey comes in.

BEESWAX.—18@20c.

Apr. 22. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Demand limited to local wants, which are small. We could sell some to country points in barrels and ½-barrels at 6½@7c. for extracted; in cans, 7½c.

BEESWAX.—22c. for prime.

Apr. 22. D. G. TUTT & CO., Commercial St.

CHICAGO.

HONEY.—Our trade is light; no large lots on hand and what there is consists chiefly of dark comb, and not salable in quantities. Choice white comb, 1-lb. sections, 16@17c.; dark grades from 10@12c. Very little demand for extracted, but prices remain at 7@9c., according to quality and package.

BEESWAX.—22c. R. A. BURNETT,

Mar. 25. 161 South Water St.

DENVER.

HONEY.—White, in 1-lb. sections, 16@18c. Extracted, 7@10c.

BEESWAX.—18@20c.

Mar. 26. J. M. CLARK & CO., 1409 Fifteenth St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 16@17c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c. If damaged and leaky, 10@12½c. Extracted, white, in barrels, 8@8½c.; ½-barrels, 8½@9c.; amber in same, 7@7½c.; in pails and tin, white, 9@9½c.; in barrels and ½-barrels, dark, 6@6½c. The demand is fair.

BEESWAX.—20@22c.

Mar. 27. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—Market is bare of comb, except some small lots of buckwheat which is selling at from 10@12c. No buckwheat extracted. Cuba and San Domingo extracted, 67@70c. per gallon.

BEESWAX.—24c.

HILDRETH BROS. & SEGELKEN,

Mar. 25. 28 & 30 W. Broadway, near Duane St.

SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 6½@7 cts.; amber, 5½@6c. Comb, white 1-lbs., 13@14c.; 2-lbs., 10@12c. Demand for extracted is good; for comb, limited. Prospects are not as good for honey as in 1888.

BEESWAX.—Scarce, at 18@22c.

SCHACHT, LEMCKE & STEINER,

Mar. 15. 16 & 18 Drumm St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 18@20c.; best 2-lbs., 17@18c. Extracted, 8@9c.

Sales have been checked a little on account of maple sugar and syrup being so plentiful. Sales of honey are very slow.

Apr. 23. BLAKE & RIPLEY, 57 Chatham Street.

DETROIT.

HONEY.—Best white 1-lbs., 15@16c. Sales slow. Extracted, 8@9c. Demand small, prices lower.

BEESWAX.—22@23c.

Mar. 22. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—We quote: White clover 1-lbs., 15@16c.; 2-lbs., 12@31c. Good dark 1-lbs., 12@13c.; 2-lbs., 10@11c.

Mar. 21. S. T. FISH & CO., 189 S. Water St.

CINCINNATI.

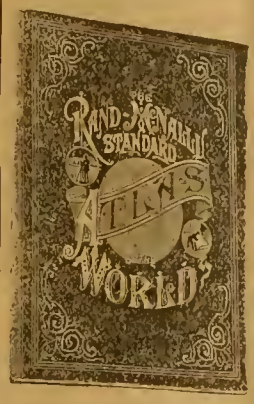
HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@15c. Demand is slow, and prices low.

BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.

Mar. 21. C. F. MUTH & SON, Freeman & Central Av.

Standard Atlas of the World.

To any one sending us, direct to this office, **Five NEW Subscribers** for one year, with $5.00 (renewals not to count), we will *present* this beautiful Atlas, by mail, postpaid:



This ATLAS contains large scale Maps of every country and civil division upon the face of the Globe.

It is beautifully illustrated with colored diagrams, showing the wealth, the debt, the civil condition of the people, chief productions, the manufactures and the commerce, religious sects, etc., and a superb line of engravings of historical interest and value, together with many new and desirable features which are expressly gotten up for this work—among which will be found a concise history of each State.

Price, in best English cloth binding (size, closed, 11x14 inches; opened, 22x14 inches), $4.50.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble, and at the same time help to scatter apicultural knowledge and promote the welfare of our pursuit.

Advertisements.

HALF-PRICE.

Something for the Good Wife.

ANY ONE sending us $3.50 for 1,000 first-class Sections, or $4 worth of other Supplies, may have one of our **Self-Heating Charcoal Smoothing-Irons** for **$1.50**, which is *half-price*. For description send for Circular, or see "Gleanings" for Oct. 15, 1888.

SMITH & SMITH,

14Etf KENTON, Hardin Co., OHIO.

1889. Italian Queens. 1889.

SELECT TESTED, in May, $2.50; in June, $2.00; and July 1 to November 1, $1.50.

☞ **Queens Warranted Purely Mated, $1; 6 for $5.**

Will commence shipping the first week in May, and ship as booked.

Make Money Orders payable at Nicholasville.

☞ Send for Circular. ☜

J. T. WILSON,

18Etf LITTLE HICKMAN, Jessamine Co., KY.

Mention the American Bee Journal.

HANDSOME SECTIONS.

WE have a limited quantity of One-Pound Sections, 4¼x4¼, a trifle less than two inches wide, with narrow tops, in packages of 1,000 each. They are manufactured from extra white lumber, are very uniform, making them the finest and most attractive honey-section in the world. Price, $3.50 per package.

THOS. G. NEWMAN & SON,

923 & 925 West Madison-Street, - CHICAGO, ILLS

Heddon Hives For Sale.

TO the purchaser of my 29 New Heddon Hives (never used) at $3 each, I will give a New 4-Frame Stanley Automatic Honey-Extractor, worth $20 00, f. o. b.

E. D. KEENEY, ARCADE, N. Y.

10Etf

TANSY PILLS!

Safe, Certain and Effectual. Particulars 4c. **WILCOX SPECIFIC CO., Phila., Pa.**

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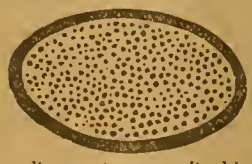
$300 GIVEN AWAY,

HOW MANY DOTS IN THIS OVAL?



Mail your answer of how many dots in this oval, with 25 cents, and you will receive for *one year* THE CHICAGO MONTHLY, a handsome family magazine, having a beautiful view of Chicago for its title page, and containing valuable miscellaneous reading matter, portraits, biographical sketches, stories, recipes, illustrations, etc, which should be in every home. First correct answer will receive $100; second, $50; third, $35; fourth, $15; fifth, $10; and the next 100 $1 each. Prizes will be distributed June 1, and the names of winners published in THE CHICAGO MONTHLY, which magazine alone is worth many times the price. Answer quick and get the first prize. In addition to this, there will be given *free to every* subscriber several dollars' worth of music, adapted to any instrument. *Remember*, if you subscribe *at once*, you may be the recipient of the *first prize*, besides the music, and there are constantly being offered in the columns of this paper many golden opportunities and valuable presents. Subscribe *now* and *win*.

E. DEVINE & CO.,

Printers and Publishers, 156 East Washington Street, Chicago.

Mention the American Bee Journal.

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Offers for 1889, a superior line of supplies. His

WHITE POPLAR SECTIONS,

and **Perforated Zinc**, are still in the lead for perfect work. His **Two-Rowed Zinc Strips** for the Wood-Zinc Honey-Boards are unequaled. His

NONPAREIL BEE-HIVE

presents the latest improvements, suited to the best management yet devised. At the Columbus Centennial it was awarded the

FIRST PREMIUM

over all the leading Hives of the day. His **SECTION SUPERS**, No. 1 and No. 2, for Open-Side Sections, are the very best!

Samples of Sections and Zinc, five cents. Price-List free. Address,

DR. G. L. TINKER,
12E5t NEW PHILADELPHIA, OHIO.
Mention the American Bee Journal.

April 1st. For 60 Days. 1889.

WE have a large stock of **ONE-PIECE SECTIONS** on hand, which are **first-class.** To reduce stock, we will name a very low price on them, in 1,000 or 100,000 lots. Also **Hives, Smokers and Brood-Frames.** Do not fail to tell us what you want, or send for our Price-List. Address,

SMITH & SMITH,
14Etf KENTON, Hardin Co., OHIO.
Mention the American Bee Journal.

SECTIONS, first-class, $3.00 per 1,000, and **Foundation** cheaper than ever. Dealers will do well to get our Prices. **Alsike Clover, Japanese Buckwheat,** &c. Free Price-List and Samples. **M. H. HUNT,**
2E13t BELL BRANCH (near Detroit,) MICH.
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FROM ITALY.

I **ALWAYS** keep in stock the **ITALIAN QUEENS** that come direct from Italy. These are called "Imported." I rear them just as fine. Send for Price-List of 1889.

Address, **R. H. CAMPBELL,**
10Etf MADISON, Morgan Co., GEORGIA.
Mention the American Bee Journal.

SURE to send for our Circular before buying. ITALIAN BEES by the lb.; 2 and 3 frame Nuclei, Queens, Sections, Foundation, &c. Untested Queens in May, $1.00; in June, 75c.; 3 for $2.00. Tested Queens, $1.25 to $3.00, in their season; 2 and 3 frame Nuclei, $2.00 to $4.00, with Queens. Address,

JNO. NEBEL & SON,
HIGH HILL, Montg. Co., MO.

☞ **Our Prices on Bees and Queens are the Lowest!** 12Etf
Mention the American Bee Journal.

ITALIAN BEES, QUEENS, and EGGS from Light Brahma and Wyandotte Poultry One Untested Queen, $1; three for $2. Eggs, $2 for 13. Price-List Free.

Address, **H. G. FRAME,**
10E13t NORTH MANCHESTER, IND.
Mention the American Bee Journal.

J. FORNCROOK & CO.,

MANUFACTURERS OF THE

"BOSS" ONE-PIECE SECTIONS,

Patented June 28, 1881.

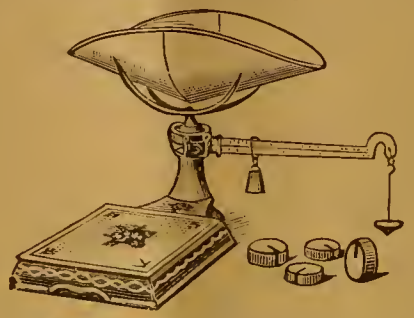
WILL furnish you, the coming season, ONE PIECE SECTIONS as cheap as the cheapest.

☞ Write for prices.

Watertown, Wis., Jan. 1, 1889. 40C3t
Mention the American Bee Journal.

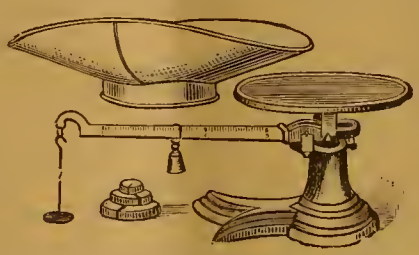
Useful Scales

The Union or Family Scale.



This Scale has steel bearings, and it weighs from ½-ounce to 240 pounds. Price, with a Single Brass Beam, as shown in the illustration, $3.00. With Double Beam for taking the tare, $3.50.

The Little Detective Scale.



This little Scale is made with steel bearings, and a brass Beam, and will weigh accurately ¼-ounce to 25 pounds. It supplies the great demand for a Housekeeper's Scale. Prices:

Single beam, no scoop	$2.00.
" " tin "	2.50.
Double " no scoop	3.00.
" " tin "	3.50.

☞ All orders filled promptly.

THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL.

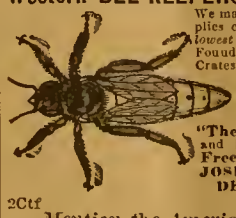
1889. **S. D. McLean** 1889.

WILL sell **BEES** by the pound. **Full Colonies, Nuclei and Queens cheap.**

☞ Write for terms, to

5C4t **COLUMBIA, TENN.**

Western BEE-KEEPERS' Supply Factory.



We manufacture Bee-Keepers' supplies of all kinds, *best quality at lowest prices.* Hives, Sections, Foundation, Extractors, Smokers, Crates, Veils, Feeders, Clover Seeds, Buckwheat, etc. Imported Italian Queens. Queens and Bees. Sample Copy of our Bee Journal, **"The Western Bee-Keeper,"** and latest Catalogue mailed **Free** to Bee-Keepers. Address

JOSEPH NYSEWANDER,
DES MOINES, IOWA.

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Mention the American Bee Journal.

ALBINO and ITALIAN QUEENS.

THOSE desiring to secure *pure* ALBINO QUEENS, will best accomplish their object by purchasing of the Original Producer of this valuable and beautiful race of Bees. For Circulars, address, **D. A. PIKE,**
12C3t SMITHSBURG, Wash. Co., MD.
Mention the American Bee Journal.

CARNIOLAN QUEENS

A **SPECIALTY.** Largest and Purest Carniolan Apiary in America.

☞ Send for Descriptive Circular and Price-List. Address,

ANDREWS & LOCKHART,
9Ctf PATTEN'S MILLS, Wash. Co., N. Y.
Mention the American Bee Journal.

BEE-KEEPERS' SUPPLIES.

HIVES, Sections, Foundation, Smokers, Frames, Crates, &c., furnished at greatly reduced rates. Also **ITALIAN BEES and QUEENS** at very low prices. Send for my Catalogue. Address,

A. F. STAUFFER,
29Ctf STERLING, ILLINOIS.
Mention the American Bee Journal.

Friends, If you are in anyway interested in **BEES or HONEY** we will with pleasure send a sample copy of the **SEMI-MONTHLY GLEANINGS IN BEE-CULTURE,** with a descriptive price-list of latest improvements in **Hives, Honey-Extractors, Comb Foundation, Section Honey-Boxes,** all books and journals, and everything pertaining to Bee-Culture. *Nothing Patented.* Simply send your address *plainly written*, to **A. I. ROOT, Medina, O.**
Mention the American Bee Journal.

HEAD-QUARTERS IN THE SOUTH.

FACTORY OF

BEE HIVES, &C.

Early Nuclei & Italian Queens.

☞ Tenth annual Catalogue now ready.

5Ctf **PAUL L. VIALLON,** Bayou Goula, La.

Barnes' Foot-Power Machinery.

Read what J. L. PARENT, of CHARLTON, N. Y., says—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List Free. Address, W. F. & JOHN BARNES,
45Ctf No. 196 Ruby St., Rockford, Ill.

SECTIONS by the Bushel.—I am now packing my Sections in bushel boxes—a box worth 15 cts. with every 500 Sections. $3 per M. Other Goods cheap. Send for Price-List, free. W. D. SOPER, Jackson, Mich.
15C3t
Mention the American Bee Journal.

Mention the American Bee Journal.

CARNIOLAN QUEENS.

AM now booking orders for June. Tested, $4.00; Untested, $1.00, or $5.00 for ½ dozen.

☞ **Send Postal for Circular.**

S. W. MORRISON, M.D.,
17A5t OXFORD, Chester Co., PA.
Mention the American Bee Journal.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. May 11, 1889. No. 19.

EDITORIAL BUZZINGS.

Sweet Home.—The most perfect type of "sweet home" is the bee-hive.

The Poultry Weekly is the second title of the *Canadian Bee Journal* in last week's issue. There are two additional leaves (the cover being discarded), and 8 pages are each devoted to bees and poultry. The first page is much improved in appearance. We wish it success.

Vexatious Delays still hold back the trial of the case of Mr. Z. A. Clark, of Arkadelphia, Ark., in the Supreme Court of that State. He writes us that he expects to "get a hearing soon."

Mr. Clark wrote thus on April 27, about his bees:

My bees are doing well here now. They began gathering pollen on Feb. 2; swarmed on the last of March, and now are ready for the extractor.

Good Testimony.—At the meeting of the Erie County Farmers' Institute held at Holland, N. Y., on April 20, 1889, Mr. M. F. Varney, of North Collins, gave an address on "Grape Culture," at the conclusion of which Mr. Hershiser asked him this question: "Do bees injure grapes?" Mr. Varney replied: "I am confident that bees will not touch them, only when the skin is broken."

This testimony from an extensive grape-grower is very important. He positively asserts that the bees do not appropriate the juice of the grape until the skin is broken by birds or insects. That is *grand testimony*, and we commend it to all the grape-growers who have foolishly waged war against the bees.

Statistics of Our Industry.—After more than a year we record the first move on the part of the Department of Agriculture to obtain the promised statistical information—for which we obtained the names of correspondents in March, 1888. We have received a circular like the following, as have (in all probability) each of the persons whose names we sent the Department a year ago:

U. S. DEPARTMENT OF AGRICULTURE.
Washington, D. C., May 1, 1889.

Sir:—At the request of the officers of the National Bee-Keepers' Association, I propose to send out twice each year circulars to prominent bee-keepers in all sections of the country, to obtain accurate statistics of honey-production. Those engaged in this industry are particularly interested in having accurate knowledge of the general condition of apiculture, and early information as to the probable honey supply, in order that they may more intelligently market their individual product. The data obtained by these circulars of inquiry will be consolidated and published in the June and October crop reports of this Department, copies of which will be sent to all persons making returns. The present inquiries relate only to the general condition of the industry, but those in October will relate to comparative product of honey for the season, quality, etc. Trusting that you will fill up and return this blank at your earliest convenience, I am, very respectfully,

J. M. RUSK, *Sec.*

Name .....
Post-Office.....
County.....
State.....

1. How are the colonies in your county generally wintered? (In cellars, caves, out-doors or otherwise?).....
2. What percentage of bees survived the past winter?.....
3. Is there any foul brood?.....
4. What races of bees are generally kept?
.....
5. What are the present prospects for the crop of the coming season?.....
Remarks.....

We filled up the blanks, and wrote after the word "Remarks," that we were glad the Department had at last taken a step in the matter—but regretted that statistical information in reference to the number of colonies of bees in the fall of 1888 and in the spring of 1889 was omitted.

Our friend, Eugene Secor, wrote us a few days ago that he had also received the "first circular from the Department of Agriculture to correspondents, to obtain statistics relating to the condition of the industry of bee-keeping." He adds: "The questions asked do not cover the ground as thoroughly, perhaps, as they might, but it is a step towards recognizing the importance of the honey-bee."

As such step towards a recognition of the pursuit of bee-keeping, we hail it with pleasure. "Large bodies move slowly"—but generally "get there" in due time. This is the result of the committee appointed at the Chicago convention in the fall of 1887.

Catalogues for 1889 are on our desk from—

F. A. Salisbury, Syracuse, N. Y.—3 pages—Apiarian Supplies.

G. D. Black, Brandon, Iowa—16 pages—Seeds, and Italian Bees and Queens.

J. Van Deusen & Sons, Sprout Brook, N. Y.—4 pages—Comb Foundation.

Southern Comb Honey.—E. Israel, Oak Lawn, Miss., on April 27, 1889, sent us two one-pound sections of comb honey, with the following letter:

I send you two sections of comb honey. Please inform me through the AMERICAN BEE JOURNAL what you think of it. The colony that gave it, also gave me 56 one-pound sections this year. It had a hybrid Holy-Land queen; she mated with a black drone. I have others doing as well. It was gathered while black locust was in bloom; white clover also. We have a heavy honey-flow at present from white clover, poplar and blackberry. My bees commenced swarming on March 26. I have already had 80 swarms.

Do not put this honey in your Museum, but put it on the table, so that you can give a good idea of its quality. Friend Muth wrote me last year that he never saw any Southern honey light enough for his trade in comb honey.

We have eaten the honey, by the help of our family, and like its flavor. It is amber in color, has a good body, and is pleasant to the taste—the white clover flavor predominating. As long as the trade calls for *white* honey in the comb, this would not fill the bill, and that is what Friend Muth meant, no doubt, but we think the flavor more agreeable than much of the white honey, particularly the linden; the latter is excellent for its medicinal qualities, but many object to its peculiar taste.

A Correspondent asks to have these questions answered in the AMERICAN BEE JOURNAL, viz:

1. What are the dimensions of the Langstroth hive; also of the frame?
2. What size of the Langstroth hive is the best for all purposes, controlling swarming, etc.?
3. As I intend to produce both comb and extracted honey next year, and comb honey this year—would it be any advantage to use extracting supers for both, using a wide frame holding 8 sections 2 tiers high?
4. Is there any difference between the V-groove one-piece section and the open side section?
5. My supers are one-half depth, with bee-spaces between the top-bars, and also under all the frames; are they for tiering up?

1. The Langstroth frame in general use is 9⅛x17⅝ outside, and the hive for 10 frames measures 14x18⅝ inches inside, and is 10 inches deep inside.
2. The hive containing 10 frames is generally considered the best for all purposes, though some use only 8 frames, and like them well.
3. Wide frames are used, but are not as popular as they were some years since.
4. One-piece sections are made open on all sides when so ordered.
5. Probably—though the question is very indefinite.

Grafting-Wax.—As nearly all our readers are farmers, or interested in that pursuit, and often would be glad to have a good, yet simple, recipe for making grafting-wax, we give the following, which the New York *Voice* says is good:

Mix one part of tallow with two parts of beeswax and four parts of rosin.

GLEANS OF NEWS.

The National Centennial Birthday was enthusiastically celebrated from the Great Lakes to the Gulf of Mexico, and from the Atlantic to the Pacific oceans—on April 30—the centennial of the inauguration of Washington as the first President under the new Constitution of the United States of America.

Not alone in the civic and military display were the ceremonies noteworthy — but throughout the whole country earnest men, women and children gathered in all the churches and offered thanks for the manifold blessings consequent upon the labors of the men who had guided their country in the hour of peril, and had laid the foundations of its peaceful progress, and present glory.

This grand Republic has now entered upon its second century strong in its might, and conscious of its grand and glorious destiny.

On the next page we reproduce an engraving exceedingly appropriate at the present moment—showing the faces of Washington and his successors down to the present time.

The Outlook.—A correspondent in last week's Orange Judd *Farmer*, who has been traveling through the State of Illinois, expresses himself thus about the prospects for a good crop of honey for this season :

In our travels through Illinois, during the past month, we have found that bees have mostly wintered well, and colonies are stronger than they have been in April for several years past. Our own are unusually strong, and have large quantities of sealed brood almost ready to hatch. The abundance of the cherry and willow bloom has been an early stimulant, and we are looking for early swarming. The outlook for white clover honey is good, there being an abundance of white clover everywhere, uninjured by the winter.

Bees and Fruit.—In reference to the very important work done by bees in fertilizing the flowers, and thereby increasing the fruit, Mr. W. Styan, of San Mateo, Calif., writes to the *Pacific Rural Press*, under the above heading, the following interesting facts :

In addition to the very able letter written by your correspondent, W., in your last issue, regarding the fertilization of fruit blossoms by bees, we have in the same issue a letter signed J. R. Springer, Woodland, which is a proof of the efficacy of cross-fertilization undoubtedly performed by the agency of bees. Mr. Springer (speaking of almond trees) says : "I will say that the Standard and Languedoc, planted alternately, will yield double what they will if each is planted by itself. I saw that at Mr. W. W. Smith's at Vacaville last June. He had 12 trees in a row—6 Languedoc and 6 Standard—and where the two varieties were the nearest, the trees were the heaviest loaded, and the further away the lighter." The reason for the above is obvious : the bees working on the trees nearest together would naturally cross-fertilize more of their blossoms than those at a distance, hence the desirability of planting the two kinds together.

Many kinds of fruit depend entirely on the agency of bees in fertilizing the flowers to enable them to produce fruit at all. It is a well-known fact in the Eastern States that unless they have a few hours of sunshine when early cherries are in bloom they get no fruit at all. The reason is plain ; when the cold wind and rain storms prevail, the bees are unable to get out, and consequently the blossoms remain untertilized.

Bee-Stings to Cure Rheumatism.—James McNeill, of Hudson, N. Y., seeds us the following with these remarks : "The enclosed, cut from the *Christian at Work*, is somewhat humorous, if it possesses no other merit." Here is the "item" referred to :

Sufferers from rheumatism, says the London *Christian World*, will be delighted to hear that a cure has been found, which tried upon 173 patients has proved uniformly successful. The first feeling aroused in them by this good news may, however, be succeeded by a less ecstatic state of mind, when they learn what the cure is—namely, the sting of bees. A certain Dr. Tere is the hero of this notable discovery. The cure is somewhat prolonged, for we read that his 173 patients took among them no less than 39,000 stings—an average of about 225 stings apiece. This is a little disheartening, though Herr Tere avers that after the first dose the subsequent stings give less and less pain. Still, the "bee-cure" has rather a forbidding aspect. The agony might, perhaps, be shortened by substituting hornets for bees—say, one hornet for every 20 bees ; or, perhaps, a single scorpion might effect the whole cure. It would be useful to have a table drawn up something in this wise :

12 midges	equal	1 mosquito.
24 mosquitoes	"	1 bee or wasp.
20 bees or wasps	"	1 hornet.
10 hornets	"	1 scorpion.

There are, doubtless, some who would prefer to take the "scorpion cure," and have it over at once.

To laugh heartily at the general fear of stings is about the best thing to do.

Honey Comb 50 Years Old.—A strange discovery has just been made in England, says the *Public Opinion* of April 12, 1889, at the Cathays Yard of the Taff-vale Railway Company. Several copies have been sent us by our correspondents. The particulars are as follows :

A large elm tree, grown in Gloucestershire, was being cut up into timber, when, right in the very heart, a cavity measuring 8 feet by 7½ inches in diameter was discovered almost completely filled with the honey comb, together with a squirrel's skull. No means of access to the hollow was discoverable, neither was decay anywhere apparent, and around the cavity itself no less than fifty "rings," each ring denoting a year's growth, were counted, the outer bark being, too, without a flaw. The hollow was of uniform size throughout, and presented the appearance of having been bored with an auger, and, great though its dimensions were, it was practically filled with comb, proving that the bees must have been in possession for several years. Empty queen-cells also showed that they had swarmed.

How the bees got there can only be guessed, but it is surmised that a squirrel once occupied a decayed hole in the tree, cleared away the decay, occupied the cavity as its home, and there died. Then the bees entered into possession, and filled the whole with comb, when by some means the entrance, which must have been small, became stopped. Then for fifty years the growth of the timber went on. The entrance being absolutely obliterated, and the hole being hermetically sealed, the comb was preserved from decay for half a century, to be found at last in the way described. The find is of great interest to naturalists.

Bears and Honey.—Two large Bears were recently captured in Ulster county, N. Y., says the Kingston *Freeman*. It seems they loved honey too well, and this led to their capture. For months honey had been missed, and suspicious persons were accused of the theft. The *Freeman* gives the details thus :

On Monday morning a member of the family of Cornelius Palen saw what at first appeared to be a large black dog near one of the hives. Investigation, however, proved the supposed dog to be a bear. A moment later another large bruin made its way into the back yard. An alarm was given. Neighbors were called to the scene, but in the meantime the shaggy brutes had slunk to a neighboring woods. A hunting party, composed of quarry men, woodchoppers and farmers, was soon organized, and a search instituted.

Two large blood hounds, owned by Cornelius Palen and Luther Trowbridge, accompanied the party. The chase was a long one. The bruins led the hunters over hill and dale. Overlook mountain was reached, and the hunters were nearly exhausted. Still the trail was followed, which led from "the mountain" through Rattlesnake Hollow. Here the dogs, which were considerably in the lead, overtook the bears, and a lively tussel ensued.

The hunters were soon on the scene, and a few minutes later two shaggy brutes lay lifeless on the ground. The dogs were badly bruised and scratched. The largest of the two bears weighed over 325 pounds. The other tipped the scales at about 300 pounds.

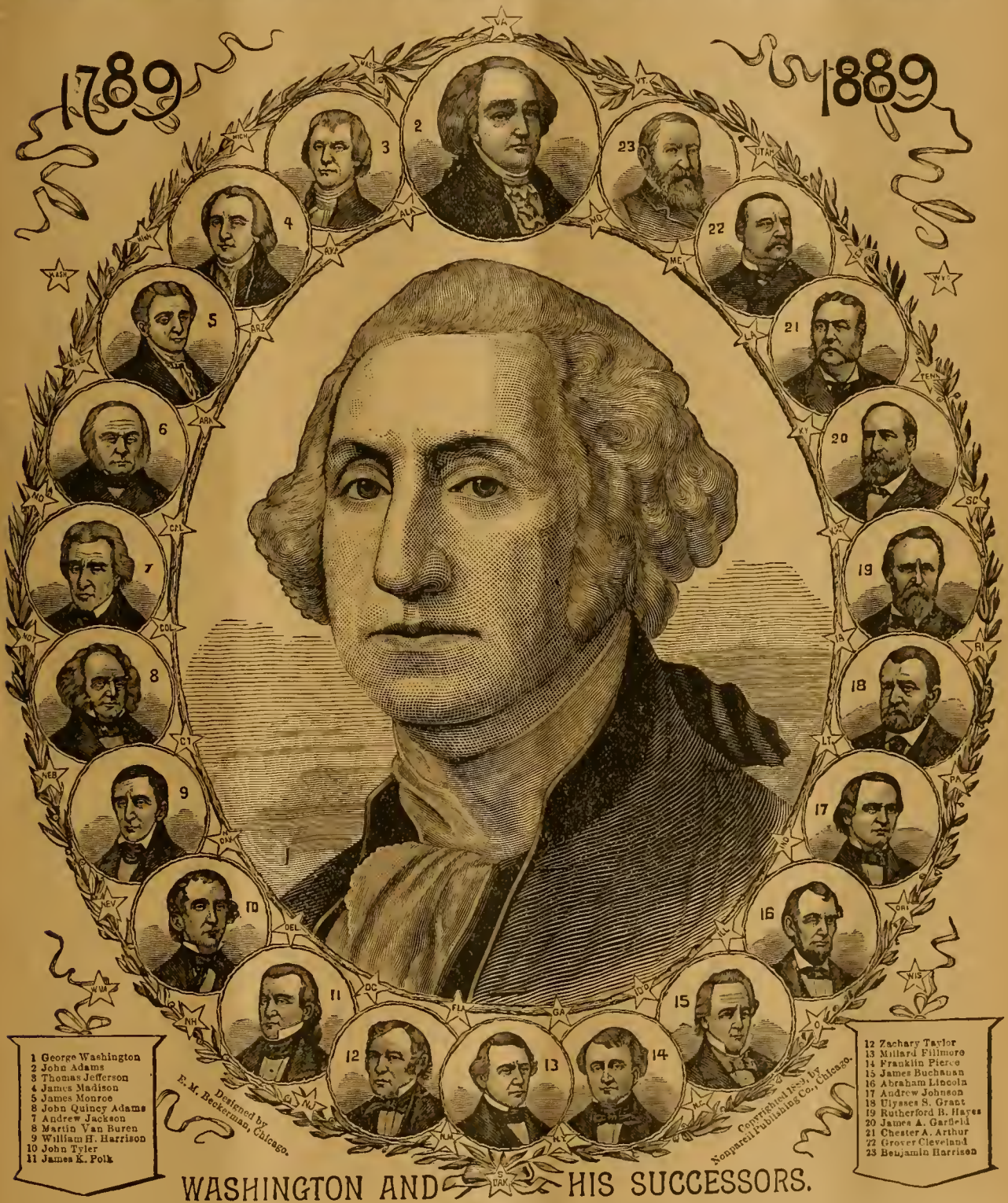
The Echoes of our Centennial celebration had hardly died away before the Republic of France began to commemorate its centennial of the revolutionary struggle for freedom a hundred years ago. The Universal Exposition at Paris opened on May 5 with appropriate ceremonies and enthusiasm, to commemorate that event, and it promises to be a grand success.

Scientific Queen-Rearing, as practically applied ; being a method by which the best of queen-bees are reared in perfect accord with Nature's ways. This is the title of a new book of nearly 200 pages by G. M. Doolittle, of Borodino, N.Y.

In this book Mr. Doolittle details the results of his experiments in rearing queen-bees for the past four or five years, and is the first to present his discoveries to the world. It will be out in good time for every progressive bee-keeper to test the various discoveries which it details, during the present season. Send all orders for the book to this office. Price, $1.00, postpaid. The usual discount to dealers in lots of 10 or more.

Early Queens.—Those wanting such Queens, should note J. N. Colwick's prices on page 302 of this issue.

PRESIDENTIAL CENTENNIAL.



WASHINGTON AND HIS SUCCESSORS.

COMMEMORATING THE ONE HUNDREDTH ANNIVERSARY OF THE INAUGURATION OF WASHINGTON AND ADAMS—APRIL 30, 1789.

The Frost on the Punkin.

BY JAMES WHITCOMB RILEY.

When the frost is on the punkin, and the fodder's in the shock,
And you hear the "kyouck" and the "gobble" of the struttin' turkey cock,
And the clackin' of the guineys and the cluckin' of the hens,
And the rooster's hallylooler as he tiptoes on the fence;
Oh, it's then's the time a feller is a feelin' at his best,
With the risin' sun to greet him from a night of peaceful rest,
And he leaves the house barebeaded and goes out to feed the stock,
When the frost is on the punkin and the fodder's in the shock.

There's something kind o' hearty-like about the atmosphere
When the heat of summer's over, and the coolin' fall is here;
Of course we miss the flowers and the blossoms on the trees,
And the mumble of the hummin'-bird and the buzzin' of the BEES;
And the air's so appetizin', and the landscape through the haze
Of a crisp and sunny morning of the early autumn days,
Is a picture that no painter has the colorin' to mock—
When the frost is on the punkin and the fodder's in the shock.

The husky, rusty rustle of the tassels of the corn,
And the raspin' of the tangled leaves, as golden as the morn;
The stubble in the furries—kind o'lonesome-like, but still
A-preachin' to us sermons of the barns they growed to fill;
The straw-stack in the medder, and the reaper in the shed;
The horses in their stall below—the clover overhead—
O, it sets my heart a-clickin' like the tickin' of a clock,
When the frost is on the punkin and the fodder's in the shock. —*Selected.*

QUERIES AND REPLIES.

Sections Used With or Without Separators, etc.

Written for the American Bee Journal

Query 630.—1. When all other things are equal, what per cent. more honey will bees store in a two-pound section, 6x6x1⅝, without separators, than they will with separators in the 4¼x4¼ sections? 2. In open-top sections, to keep the bees from coming out, what do you cover them with? 3. Do you use glass on the end sections? 4. If not, how do you tell when the bees commence work, and when the sections are finished?—Ohio.

1. I do not know. 3. A quilt. 3. No. 4. Raise the quilt and look between the sections.—A. B. MASON.

1. Very little, if any. 2. Oil-cloth covers. 3. No. 4. Remove the cover from the corner, and *look*.—C. H. DIBBERN.

1. Very little, I think. 2. I use a board cover, just bee-space above the sections; that is all. 3. No. 4. Look into the ⅞-inch space above.—A. J. COOK.

1. Very little, if any. 2. Enameled-cloth. 3. No and yes. Partly, and partly not. 4. By examination.—WILL M. BARNUM.

1. I cannot say. 2. I mostly use a cloth—often a thin board. 3. Not often. 4. Tell by removing the cover. —J. P. H. BROWN.

1. Little if any difference. 2. I use wide frames. 3. No. 4. Pry the wide frames apart, or the closing board at the sides.—G. M. DOOLITTLE.

1. It is possible that they would store a little more, but I doubt it. 2. With the plain flat hive-cover, the section-case being so made that there is a bee-space between the sections and the cover. 3. No. 4. I raise the cover and look in.—R. L. TAYLOR.

1. Fully ⅓ more. 2. A burlap mat, and plain honey-board. 3. No. 4. By removing the plain honey-board and mat, and looking down between them.—J. M. HAMBAUGH.

1. I cannot say. 2. Cloth. 3. Where I use sections I do; where I use a case like Heddon's, I do not. 4. It is an easy matter to raise the cloth that covers the case, and one can see at a glance whether the sections are full or not.—MRS. L. HARRISON.

1. I do not think that they will store any more. 2. The top of the hive or cover; I also use enameled-cloth on many hives, and like it. 3. In one style of hive, I use glass. Give a puff of smoke, then look down through the openings on top.—H. D. CUTTING.

I do not think that any appreciable difference will be found. 2. Usually with thin strips of deal. 3. I use no glass in the hives at all, but examine from time to time to see what progress is made.—J. E. POND.

1. I am not sure that they will store any more. I have never used separators. 2. Any kind of board that may be at hand, or a shingle. 3. Yes, generally. When I do not, I remove the thin board that is in the place where the glass ought to be.—M. MAHIN.

1. Not any more. 2. I let them come out. I have a bee-space over the sections, and cover with a hive-cover. 3. No, certainly not. 4. If I wish to know when the sections are finished, I examine.—J. M. SHUCK.

1. One-third more. Bees hate separators. 2. Indian-bead muslin. 3. I have wine-cases with glass at the sides. I do not like them. I want open-top sections, and to look inside I cannot always tell. Sometimes I take them off, look at the bottom, and then put them on again.—MAHALA B. CHADDOCK.

If the sections be 4¼x4¼x1⅞ inches, open-sided, and used with perforated wooden separators, bees will store fully as much (and probably more) honey in them than in a two-pound section 6x6x1⅝ inches, without separators; and I think so from having made this same test with the latter size of sections, but I shall never use it again. But if the smaller sections be closed-sided, and used with separators, the bees will store at least one-third more honey in the larger sections used without separators. 2. A section-case for open-top sections (and I think that no other kind are profitable to use) should have a bee-space above the sections, and the hive-cover should rest upon it. 3. I use no glass about section-cases, but can tell all about the work going on, by looking into the sections from the top, and sometimes using a little smoke.—G. L. TINKER.

1. I do not know, but I would not expect them to store as much. 2. Nothing. Let them come out. 3. Raise the cover, and you can see every section; raise the super, and you can see whether each section is finished.—C. C. MILLER.

1. If they begin in the sections without "sulking," as Mr. Hutchinson says, they will probably put the same amount in either kind. But they are more likely to "sulk" with the small sections and separators. 2. The oil-cloth and straw-mat. 3. We do not use glass; we look from above in the openings of the sections.—DADANT & SON.

1. That is a question that could only be answered by practical test on a large scale. 2. I use a bee-quilt made of enameled-cloth, or any clean cloth will do. 3. No; I only have to turn up the quilt, and look down through the openings between the sections, to tell at a glance what progress is being made in the sections.—G. W. DEMAREE.

1. Perhaps a little more, but what per cent. I shall not venture to guess. 2. The hive-cover. There should be a bee-space between the top of the sections and the cover, so that it does not touch the sections at all. 3. No. 4. Look down between the sections from above. You can tell more about the condition in that way, than the other. —EUGENE SECOR.

1. The difference is an unknown quantity. It is but very little, if any. 2. A cloth. 3. Yes; if the honey-rack is used. If not, no. 4. A look down between the sections will give the desired information.—THE EDITOR.

Convention Notices.

☞ The second meeting of the York and Cumberland Bee-Keepers' Association will be held in the Good Templar Hall, at South Waterboro, Maine, on May 15, 1889, at 9:30 a.m. A cordial invitation is extended to all. Matters of interest will be discussed. Bring your hive or some useful implement for exhibition. Hotel accommodations may be had in the village at reasonable rates. C. W. COSTELLOW, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Brantford, Ont., Canada.

CORRESPONDENCE.

WINTERING BEES.

Box-Elder for Hedges—Temperature in Winter.

Written for the American Bee Journal
BY A. C. TYRREL.

Cottonwood and box-elder trees are now furnishing an abundance of pollen, and the bees are once more busy preparing for the honey-flow, instead of robbing their weak neighbors, as was the case early last season; and not that alone, for they robbed every merchant in the city not provided with screen-doors. Whether or not the above-mentioned trees yield nectar, I am unable to say, never having the heart to kill a bee and examine its honey-sac.

Box-elder trees being indigenous to this State, they are very hardy, grow quite fast, are valuable for sugar, and furnish the first pollen. No trees with which I am familiar, have such dense foliage, or put forth leaves so early in the season, with the exception of crab-apple trees.

For hedges, all things considered, there is nothing better than box-elders, as they can be shaped into any form desired, and any amount of hacking at any season of the year, will not injure them in the least. The young shoots are so tender that trimming is accomplished with very little effort. The hedge in front of our residence is admired by all who view it, Bostonians, who have visited our city, not excepted.

Early this spring, before the trees blossomed, the bees left on the summer stands brought in flour from the mill every pleasant day.

Winter Temperature for Bees.

Our bees wintered well, every colony being alive when taken from the cellar. The winter before, one-third died, perhaps owing to improper ventilation.

My experience is widely at variance with Prof. Cook's; my bees are quiet at a low temperature, and restless at a high temperature. During the warm weather last fall and winter, I found it necessary to throw open both cellar-doors every night, to lower the temperature, and to admit pure air.

Place a number of colonies in a cellar, or an air-tight apartment under ground, and the air soon becomes poisoned, and the bees die sooner or later in consequence. The readers who have been in a packed audience in a room imperfectly ventilated, know how it is themselves.

I find that the bees wintered on the summer stands are in better condition than those kept in the cellar.

The experimental hive that I used, seems to be well adapted to a changable climate. One morning the thermometer registered 25° below zero, I placed my ear against the hive, and could hear a gentle humming, which proves that bees can be wintered in any climate where chaff-hives are successfully used.

I put a large sheet of blotting-paper over the brood-frames to absorb the moisture, and over that a strip of burlap, all of which was unnecessary, as the cover was air-tight. I examined the colony to-day, and find plenty of honey, and more brood than is usually found in June—fully ten times as much as in the hives stored in the cellar.

I have discovered that a newspaper placed over the burlap, when bees are taken from the cellar, is much better than oil-cloth; for it fits closer to the hive, and no heat can escape if the cover is pressed down firmly. It was all the covering used in a large number of my hives in the cellar, and I have yet to discover any injurious results arising therefrom.

Preparing Hives for Winter.

The simplest and best method that I have yet discovered for cellar-wintering of bees, is as follows:

Remove the bottom-board and cap of the hive, and draw a thick gunny-sack over the hive, put the cover on, and place the hive thus prepared on the shelf, and the work is complete. The advantages are manifold; light is excluded, and dead bees cannot clog the entrance and smother the colony; they drop in the sack, and not on the cellar floor to be trod upon, neither can they crawl out of the hives, never more to return.

If it is thought necessary to remove the dead bees, a small slit can be cut where the sack bulges, the bees taken out, and the slit closed with a pin.

By making use of this method, the hives are at all times well ventilated, and a high temperature can be maintained when necessary. The sacks can be used for many years, if kept in a dry place when not in use. I hope that bee-keepers will try this plan next winter and report.

Flattering Prospects.

Our prospects for this season are quite flattering. For pasturage I have 4 acres of Alsike clover, and 2 acres of melissa in fine condition, from seeds self-sown last season; besides, white clover in the city is well advanced. Sweet clover is a failure here.

Madison, Nebr., April 19, 1889.

HINTS.

Two Queens in a Hive, Shipping Bees, etc.

Written for the Prairie Farmer
BY MRS. L. HARRISON.

I traveled sixty miles on the railroad recently, and ten miles by carriage. All the way I kept looking for bee-hives, and only saw some at one place. I am afraid that Illinois has not bees enough to do the work required of them in fertilizing the flowers, and every year fruit appears to get scarcer. There are very few insects at this season of the year, and bees alone must carry the fertilizing powder from blossom to blossom to insure the setting of the fruit. Clovers would soon disappear from pastures and meadows without their friendly aid.

Two Queens in a Hive.

I visited an apiary the other morning, and saw the bees coming in, with their panniers heavily laden with the beautiful pale-yellow pollen. Box-elder, frequently called "ash-leafed maple," is a fruitful source of both honey and pollen, and those planting for timber or shade should not forget it.

While looking at the bees and admiring them, the proprietor remarked: "I bought three queens, of a distinguished queen-breeder last fall, and lost one while introducing her. I had removed one queen, and supposed that was all, as is generally the case, and introduced the new one, when she was destroyed." Two queens, or mother and daughter sharing maternal honors, are not so rare as may be supposed.

Dr. Allen, while attending the National Bee-Keepers' Convention at Lexington, Ky., was presented with a valuable imported queen, which he reported lost in a similar manner. So, those introducing new queens should be doubly sure that all old ones are removed, lest they be destroyed in like manner.

Shipping Bees.

Bees can be shipped long distances, if only precautionary measures are taken in order to confine them to the hive. They also need ventilation while in transit. Our hives are Langstroth with porticoes, and in preparing some colonies for transportation to Nebraska lately, good, strong colonies were chosen, in which the frames were securely fastened with propolis or bee-glue.

A couple of thicknesses of old blanket were wrung out lightly of warm water, and spread over the frames, plenty lare enough to reach

over the sides of the hives, and then a board nailed on. The dampness in the blanket served the double purpose of keeping the bees cool, and furnishing water while in transit. Wire-gauze was nailed securely over the front of the portico. Bees fixed up in like manner, missing their destination, and that were knocking about as freight for three weeks, yet finally arrived at their destination all right. The bees we shipped were sent by express.

Fresh Water for Bees.

Persons owning bees and not located near streams of water, should furnish them fresh water daily, as it will save time, which, to the bee, means honey, as it means money to us. The way they frequent wells and cisterns shows that they prefer water fresh to stale, and they appear to enjoy sipping it from gravel and sand. I have used milk-crocks filled with gravel and sand, but, on the whole, I prefer wooden kegs with cloths put in them, hanging over the sides, acting as syphons. The bees sip water from the sunny side of the kegs. The kegs should be washed out frequently, and one should be a little brackish, about a tea-spoonful of salt to a pail of water.

Starting an Apiary.

A correspondent writes to know how many colonies he should buy, in order to start bee-keeping; what kind of bees, and which is the best hive.

A person having no previous knowledge of bee-keeping should not purchase more than two colonies, and let his knowledge increase in the same ratio as his bees. If it is a good season, the bees will double, and much more, if allowed to follow their own sweet will. If a colony is allowed to swarm once, and no more, both will be strong, and able to store surplus. Much increase and honey cannot be obtained the same season, and a person can readily have which he prefers —bees or honey.

All bees are good, and persons can take their choice. The Italians are the most "fashionable" variety just now. Brown or German bees have their good points; they build up quickly in the spring, throw off enormous swarms, and have the reputation of sealing the whitest honey. Italians leave their hives earlier in the morning, and work later in the evening; they have stronger wings, and longer tongues than the common bees. This enables them to work on flowers which the common bees cannot.

The hive I use and prefer is the eight-frame Langstroth. There may be others just as good, but none better, in my judgment.

Peoria, Ills.

POETRY.

The Muses and their Literary Productions.

Written for the American Bee Journal

BY JAMES HEDDON.

It seems that bee-keeping is more of a poetical business than many other lines of production. Although some of the rhymes found in bee-periodicals, written by bee-keepers, are more of a jingle than poetry, still, it shows us that they are touched with the poetical sentiment, caused by the excitement and hustle of the apiary, with its hopes and disappointments, resulting from its greatly varied income, together with the fact that the work brings one in contact with Nature's scenery. But to a far greater extent does field sports bring one face to face with Nature's most beautiful scenes, and that, too, at a time when the fancies are heated with excitement, and the mind becomes as plastic as molten iron before it has cooled and hardened.

To illustrate what I mean by true poesy and "jingling" rhyme, allow me to present a poem from George Arnold, a second-rate English poet, entitled

SEPTEMBER.

Sweet is the voice that calls
From babbling waterfalls
In meadows where the downy seeds are flying,
And soft the breezes blow
And eddying come and go
In faded gardens where the rose is dying.

Among the stubbled corn
The blithe quail pipes at morn,
The merry partridge drums in hidden places,
And glittering insects gleam
Above the reedy stream
Where busy spiders spin their flimsy laces.

At eve, cool shadows fall
Across the garden wall,
And on the clustered grapes to purple turning,
And pearly vapors lie
Along the eastern sky,
Where the broad harvest-moon is redly burning.

Ah! soon on field and hill
The winds shall whistle chill
And patriarch-swallows call their flocks together,
To fly from frost and snow,
And seek for lands where blow
The fairer blossoms of a balmier weather.

The pollen-dusted bees
Search for the honey-lees
That linger in the last flowers of September,
While plaintive-mourning doves
Coo sadly to their loves
Of the dead Summer they so well remember.

The cricket chirps all day,
"O fairest Summer, stay!"
The squirrel eyes askance the chestnuts browning;
The wild-fowl fly afar
Above the foamy bar,
And hasten southward ere the skies are frowning.

Now comes a fragrant breeze
Through the dark cedar trees,
And 'round about my temples fondly lingers
In gentle playfulness,
Like to the soft caress
Bestowed in happier days by loving fingers.

Yet, though a sense of grief
Comes with the falling leaf,
And memory makes the Summer doubly pleasant,
In all my Autumn dreams
A future summer gleams,
Passing the fairest glories of the present.

A poem may be poetical from its sentiment, but it seems to me that it is with the descriptive that the poet finds his best opportunity to excel. I consider that there is no other field equal to that of description.

We should be able to fairly judge of a poem entirely independent of the reputation of its author, and now I will give one which I consider fully equal to the foregoing, by Frank Selden, of Modus, Conn., an obscure writer, who, so far as I have been able to learn, is a true field sportsman. Although his name is not great, any one who appreciates true poesy, cannot for a moment fail to recognize that he is great; and to meet him and make his acquaintance would be of vastly more pleasure to me than to meet any of the Presidents of the United States.

We will suppose that just before the shooting season, Frank and "Scout" are taking a pleasant stroll in the woods, and both becoming tired, Frank sits down upon a log, while Scout reclines by his side, and as their eyes meet, Frank addresses the noble animal as follows:

TO MY SETTER "SCOUT."

You are a tried and loyal friend.
The end
Of life will find you leal, unweary
Of tested bonds that naught can rend,
And e'en if years be sad and dreary
Our plighted friendship will extend.

A truer friend man never had;
'Tis sad
That 'mongst all earthly friends the fewest
Unfaithful ones should thus be clad
In canine lowliness; yet, truest
They, be their treatment good or bad.

Within your eyes methinks I find
A kind
And thoughtful look of speechless feeling
That Mem'ry's loosened cords unbind,
And let the dreamy past come stealing
Through your dumb, reflective mind.

Scout, my trusty friend, can it be
You see
Again, in retrospective dreaming,
The run, the woodland and the lea,
With past Autumnal sunshine streaming
O'er ev'ry frost-dyed field and tree?

Or do you see now once again
The glen
And fern, the highland and the thistle?
And do you still remember when
We heard the bright-eyed woodcock whistle
Down by the rippling shrub-edged fen?

I see you turn a list'ning ear
To hear
The quail upon the flower-pied heather;
But, doggie, wait till uplands sere
And then the Autumn's waning weather
Will bring the sport we hold so dear.

Then we will hunt the loamy swale
And trail
The snipe, their cunning wiles o'ercoming:
And oft will flush the bevled quail,
And hear the partridge slowly drumming
Dull echoes in the leaf-strewed dale.

When wooded hills with crimson light
Are bright,
We'll stroll where trees and vines are growing
And see birds warp their southern flight
At sundown, when the Day-King's throwing
Sly kisses to the Queen of Night.

But when the leaves of life's fair dell
Have fell,
And Death comes with the Autumn's even
And separates us, who can tell
But that, within the realm of Heaven,
We both together there will dwell?

PERSONAL.

Allow me to thank you, Mr. Editor, for your kind mention of my election. I really have reason to feel somewhat proud of it, as I desired neither nomination nor election; solicited no votes or poll-workers, and had a majority of 76 to overcome before my majority began. Our bright and rapidly growing little city is this year expending $40,000 for a thorough system of water

works, besides our regular out-puts, so my friends, among your readers, may know that I shall be a busy man for the coming year.

Dowagiac, Mich.

OHIO.

Report of the Fayette County Convention.

Written for the American Bee Journal

The first meeting of the Fayette County Bee-Keepers' Association was held on April 11, 1889, at the residence of J. W. Gillespie, at Washington C. H., Ohio, and was attended by quite a number of representative bee-keepers. After a bountiful repast served by the hostess, Mrs. G., the meeting was called to order by President Waters, who gave quite an interesting address.

After the usual preliminary business was dispensed with, the election of officers for the ensuing year was held, and resulted as follows:

President, D. Waters; Vice-President, Lewis Haines; and Secretary-Treasurer, S. R. Morris.

Mr. J. W. Gillespie was appointed as a committee of one to formulate the Constitution and By-Laws of the Association into pamphlet form, and have some new copies printed, after which a report from each member present who has bees, was heard with regard to their wintering.

Reports on Wintering.

J. H. Ferguson wintered his bees on the summer stands, starting in the winter with 2 colonies, and has them yet, but one is queenless.

Lewis Haines began the winter with 68 colonies, and now has 62 in good condition; he wintered them on the summer stands, a part in Root chaff-hives, and part protected otherwise.

Scott Hopkins had 15 colonies, and came through with 9 colonies; he wintered them on the summer stands without protection.

S. R. Morris began the winter with 66 colonies, and now has 60; wintering half of them on the summer stands, protected by sawdust cushions, and half in a winter repository.

D. Waters started into winter with 13 colonies, and came through with 8; wintering them on the summer stands without any protection.

After the reports were ended, a motion prevailed that the President appoint a committee consisting of one from each township, for the purpose of working up the interests of bee-culture, and the successful progress of the Association.

The following names will constitute the committee:

Concord township, Wm. Bay; Green, R. Binkley; Jasper, Levi Rice; Jefferson, G. M. Eichelberger; Madison, C. West; Marion, Wm. Clarkson; Perry, Lewis Haines; Union, J. H. Ferguson; Paint, S. R. Morris; Wayne, Joseph Bonham.

After a general discussion on bee-culture, the convention adjourned to meet at the residence of D. Waters on Thursday, May 9, 1889, at 10 a.m. Everybody interested is invited to attend.

The programme for the next meeting will be as follows: "Spring management of bees, for the purpose of obtaining a large yield of honey," by Wm. V. Bay; "What should be done with queenless colonies," by J. H. Ferguson; "Signs of failure in queens," by Lewis Haines; "The outlook for the coming season, with reference to the honey crop," by H. Ellis.

S. R. MORRIS, *Sec.*

MOVING BEES.

Shipping an Apiary by Freight 200 Miles.

Written for the American Bee Journal
BY WM. LOSSING.

There is no part of the AMERICAN BEE JOURNAL that I read with more interest than the letters from every State, and especially when written by some old and experienced bee-keeper.

Last fall I decided to change my location, so I moved to Howard Lake, Nebr., and employed a fellow bee-keeper, Mr. Andrew Quist, to see that my 203 colonies were properly placed in the cave, which he did in first-class order. On April 10 I arrived at Hokah on the midnight train, and by the next night I had 147 colonies out; the next morning I finished carrying them out; I lost 3 colonies outright, and 4 were queenless when put in, making 7 in all.

Then came the tug of war—loading all these bees in a freight-car for a ride of 200 miles, and to receive the "careful handling" of railroad brakesmen. When they arrived at Howard Lake, it seemed as though they would be a total wreck; but to my happy surprise, only 4 colonies had succumbed to the "gentle" knocks of a freight-train, and the balance came through in fine condition.

I placed the hives so that the combs would be parallel with the car. I did not nail the frames, but just left them as the bees had fastened them with propolis last fall. I left each hive with plenty of upward ventilation, and a little in front, so that if the combs of honey broke down, it might run out; but that part failed, for those that perished were broken down, and the bees, honey and all were in a mess together. I gave each colony plenty of water as I loaded them on the car.

This looks like a promising season. I am located 8 miles east of the apiary of Mr. Fayette Lee, who has reported this as a great place for honey. I will expect to be able to make a like report, as we have here plenty of basswood, white clover, golden-rod, asters, and in fact almost everything that grows in a Northern climate.

I have sold 50 colonies to one man, since I moved, so when I get through uniting weak colonies, I will have about 135 left, to make a joyful sound around our little home "out West."

Howard Lake, Minn., April 29, 1889.

BEGINNING.

An Experience in the Keeping of Bees.

Written for the American Bee Journal
BY M. RICHARDS.

Three years ago I had my first experience with bees. I was going to Hampton, Nebr., with a load of grain, when I saw an unusual throng of what I supposed were flies, in a cornfield by the roadside. I went to examine them, and to my surprise I found a huge bunch of bees hanging on a corn-stalk. I took a good view of them, and the next thing was to get them into a box to take them home, a distance of about 3 miles.

I went to the nearest house to procure a box, and the old gentleman who resided there, told me about his adventures with bees away back in Ohio, 50 years ago. I was somewhat interested in his history, but I was more interested in getting the box; so I urged my business a little harder, and he said he had no box, but that he could give me a molasses-keg. I thought that was good enough, so we got it ready, according to his ideas. He went with me, and placed the keg, as he supposed, in the proper way; then he told me to knock them down, when I slipped up near the hill of corn, and gave it a terrible blow with a stick, just below the bees.

I made my escape without getting stung, and after awhile the old gentleman went home, and I remained until dark, but the bees did not like to go into the keg. So I went home, and about 3 o'clock in the morning I returned, but found the bees still clustered on the side of the keg. It was pretty dark, and I was not very much afraid of them in the night, so I had

prepared everything to handle them, and I took a sheet and enveloped the whole thing—bees, keg, and all—and put them on a spring-wagon and took them home.

The next day the bees were determined to leave their new home, but by throwing water on them, pounding on pans, and making a great noise, we induced them to stay. I then obtained Prof. Cook's "Manual of the Apiary," after which I proceeded in a little better way, and those bees did remarkably well. The next season I took 4 colonies on shares, and as my colonies increased, I increased in the knowledge of bee-keeping. I cannot estimate the value of the AMERICAN BEE JOURNAL to me, as I have received so much valuable information from it. I cannot do without it while I keep bees, and I never expect to stop bee-keeping while I live.

My bees did tolerably well last year, considering the dry season, as I got about 2,000 pounds of honey from 30 colonies, which I sold in my home market at 15 or 20 cents a pound. I am looking forward to a more prosperous season this year. My bees have wintered well, and are in good condition for the coming season.

Aurora, Nebr., April 19, 1889.

MICHIGAN.

Report of the Ionia County Convention.

Written for the American Bee Journal

The Ionia County Bee-Keepers' Association met in annual session at Ionia, Mich., on April 18, 1889. The following officers were elected for the ensuing year: President, J. H. Robertson, of Pewamo; Vice-Presidents, Geo. W. Stanton, Sheridan; and I. A. Balch, Ionia; Secretary, Harm Smith, Ionia; Treasurer, M. Guernsey, Ionia.

The report of the Secretary showed the result of the year with the 18 members present, to be as follows: Fall count of colonies, 885; spring count, 784. Honey taken during the year, 8,891 pounds; pounds of wax, 101.

J. H. Robertson then delivered the following

President's Annual Address:

I am here as a member of this Society to assist as best I may, in throwing light upon the subjects brought before us for discussion. I am in hopes that we have passed the crisis in the history of bee-keeping in our county, and that all well-informed bee-keepers are aware of the fact that the time has passed when large and remunerative profits can be realized from the pursuit. It will not be my purpose to instruct those of you who are already experts in the business, whose lessons have been taught you by dearly-bought experience. Many of you, I think, with myself, have learned that it is not advisable to carry all your eggs to market in one basket.

I have found that one of the great difficulties we have to encounter is that bee-keeping is a charming pursuit, and that its beauties are many times magnified; while its dark or black side, with its many discouragements, is kept clear in the background.

"Springing" Bees.

We have now arrived at the season of the year when large colonies grow larger, and small ones smaller, robbing and dwindling being our greatest spring trial; and these I think, with even the expert, the hardest mile-post he has to make. Robbing being well under way, the colony is discouraged usually before the trouble even catches his practiced eye, and with dwindling he has but the queen and a small handful of bees, whereon the last examination was to all appearance a fairly prosperous colony. Teach us how to successfully spring our bees, and I think that the most of us could make a fair remuneration for our outlay in even such three poor seasons as we have just passed through.

Bees Ready for the Harvest.

The next point essential to success is to get the bees ready for the harvest. The flowers may bloom in vain, so far as securing a crop is concerned, if our colonies are not in that strong, populous condition, ready to take advantage of Nature's provisions. The apiarist must know his colonies, work hard early and late, and leave no stone unturned that will add one more pound of honey to his crop. Bees will store honey in a box, straw-skep or log-gum; but the time honey could be sold, taken from such a repository, has passed away. So that if we realize the most for our labor, we must compel our bees to store it in neat and attractive sections. This will lead to methods of which the first is contraction, whether vertical or horizontal, with the relative merits of each system. System would mean the hive, making it necessary, without large outlay, to adopt the system best suited to the hive we have in use.

Control of Increase.

An interesting topic being discussed through our papers is the control of increase, or to handle bees in such a manner as not to decrease the profits of the apiary colonies. Allowing a part to cast many swarms, or even to swarm at all, makes serious inroad in the profit of the stock. This I think a subject well worthy of your fullest consideration.

In conclusion, allow me to say that the prospects for a successful season were never better. Reports from all the Southern States are that their bees are booming, and that their prospects are better than for a number of seasons past; and we are enjoying the same state of facts.

In the growing industry that we represent, Ionia county ranks well in the production of honey. Our breezes are tempered by our great inland sea, and our soil is generous in foliage and flowers. We are strangers to extreme drouths and pestilential moisture. We are not in the path of the blizzard or the death-dealing tornado; and I sincerely hope that at our next meeting we can report to our Secretary that once more our favorite pursuit has returned us a bountiful harvest.

J. H. ROBERTSON.

W. Z. Hutchinson, of the *Bee-Keepers' Review*, was invited to address the fall meeting of the Association.

After a discussion of various pertinent questions, the convention adjourned to meet at the call of the Secretary, in the latter part of September next, at Ionia. HARM SMITH, *Sec.*

WINTERED WELL.

Good Outlook for Honey—Some Experience.

Written for the American Bee Journal

BY J. B. SYPHRIT.

I took my 19 colonies of bees out of the cellar on April 10, and found them in splendid condition; in less than two hours they were carrying in pollen. They are working very industriously on willows and peach-bloom. The outlook for honey is very good, white clover here being very promising.

I winter the bees in a cellar 18x32 feet, walled with stone; a diagonal tile runs through it, with tile ventilators in the end windows. I always have wintered my bees successfully. In 1887 the bees starved, but I fed them sugar syrup for wintering, and brought them through the winter; but in the spring of 1888, I lost 13 colonies by spring dwindling, being nearly all old bees. Last season I got a little honey from fruit-blossom, then I had to feed until sometime in August, when we had plenty of rain, and the bees accumulated nectar very rapidly. I got about 400 pounds from 10 colonies, in sections, and the lower stories were full, and they are still very heavy. I use

the 10-frame Langstroth hive, and have used nothing else for 25 years.

We are now having plenty of rain, and Alsike and sweet clover look well. This part of the country has plenty of linden, and almost all kinds of honey-plants that grow in the Northern States. I handled bees for more than 20 years with nothing to guide me except Langstroth on "The Hive and Honey-Bee." The last few years I have been reading new works on bees, with improved methods, and I find that I was just 20 years behind the times. I commenced handling bees when all that was necessary was to know how to make a box, and get bees in; then in the fall, to know how to build a sulphur pit, and put them on—that was all it required to be an expert bee-man. I now read the AMERICAN BEE JOURNAL, which comes to me every Thursday, nice and clean, and I hail it as a great treasure. I could not get along without it; it is the first paper that I open, and the first that I read. May it live many years to continue its mission of usefulness.

Newport, Iowa, April 19, 1889.

BUSINESS BEES.

Breeding Bees for the Honey-Gathering Quality.

Written for the American Bee Journal

BY FRANK COVERDALE.

Should we breed for quality in bees, as well as in other farm stock? I certainly must favor this, for two reasons, viz: First, because it is very reasonable; and second, because I know from personal experience in my own apiary, that through years of careful selection, from the most prolific and best honey-gatherers, I have reared a strain of bees much superior to what they would have been if allowed to increase at will.

Upon meeting a bee-keeper some time ago (who keeps, on an average, 100 colonies), and asking if he would have to feed any of his colonies for winter, he said: "Those that will not have enough honey to carry them through the winter, are not worth feeding; and I do not care whether I save them or not, for they are of no use to gather honey." I call this a very expensive method of weeding out the bad quality. I am inclined to think that a great part of our bee-keepers are rearing bees for beauty, and not giving enough attention to the honey-gathering quality and prolificness, which should go hand in hand.

I would not be understood as being one who would discourage the breeding of the beautiful bee, with the three distinct yellow bands; for from these I believe that an excellent strain can be bred. When visiting a beginner in bee-keeping, he will show his golden Italians, saying perhaps nothing about their honey-gathering quality; and he may continue breeding for the most beautiful, regardless of anything else, and thus be in the future a loser of dollars and cents. If we have the control of the drones, it is as easy to rear bees to produce much honey, as to rear cows to give much milk. Just so it is with disposition, whether in bees, cattle, horses, or whatever it may be; if it is possible to breed cattle for beef and milk; and horses for disposition, is it not just as much possible to breed bees for disposition and honey-gathering quality? I most assuredly answer, yes! Then if this be true, thousands of pounds of honey or nectar are wasted, because of so great a neglect.

Upon the foregoing points of excellence hang all the dollars and cents for the honey-producer. The idea that we must have our bees tempered like hornets, in order to have good honey-gatherers, is really preposterous!

Welton, Iowa.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

May 15.—York and Cumberland, at Waterboro, Me. C. W. Costellow, Sec., Waterboro, Me.

May 21.—Northern Illinois, at Pecatonica, Ill. D. A. Fuller, Sec., Cherry Valley, Ills.

Dec. 4, 6.—International, at Brantford, Ont., Canada. R. F. Holtermann, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Expecting a Good Season.—Joseph E. Shaver, Friedens, Va., on April 25, 1889, writes:

The past winter has been a mild one, and bees have come through the winter in fine condition. The weather is very fine now; the peach, cherry and apple trees are in full bloom, and bees are gathering honey rapidly. One of my neighbor's had a nice swarm day before yesterday. Bee-keepers are expecting a good honey season this year, and they are rapidly discarding the box-system of bee-keeping, and adopting the modern system of apiculture. To all such, we wish hearty success; to wish success at this day, to the box-hive system, would be to wish success against hope; for I do not think that there is much hope for their success.

Well Satisfied with the Bees. John Haskins, Empire Prairie, Mo., on April 26, 1889, writes:

Bees have wintered finely, and most of them have an abundance of sealed honey. My bees in 1888 averaged about $17.00 per colony, spring count, from heart's-ease, as the white clover only yielded about honey enough for brood-rearing. I have lost no colonies the past winter, and gave them scarcely any protection. I had 7 colonies last spring, and now I have 30. I had lots of empty combs last year, and they were a great help to my bees. I am well satisfied. Peach, plum, cherry and apple trees are in full bloom. I have kept bees for many years, and I find there is lots for me to learn yet. The AMERICAN BEE JOURNAL is a great help to me.

Bees Wintered Safely.—T. Garion Fisher, Topton, Pa., on April 25, 1889, says:

I like the AMERICAN BEE JOURNAL better every week—in fact I cannot see how I could get along without it. I safely wintered 11 colonies of bees on the summer stands. Nearly every colony has 5 frames of capped brood to-day.

Successful Cellar-Wintering.—Rev. L. Lobeck, Knittel, Iowa, on April 18, 1889, says:

My 11 colonies of bees wintered in the cellar under the house, and did too well, as every colony is boiling over with bees. There was no ventilation in the cellar, but it is tiled, and of course that gives a sub-earth ventilation. I never lost a colony in the cellar.

Ants in the Apiary, etc.—Ira N. Lyman, St. Peter, Nebr., on April 22, 1889, writes:

In the BEE JOURNAL recently, I noticed an item in regard to ants troubling the apiary a great deal. One sure remedy is to place the hives on a bench with short legs, put those legs in fruit-cans or dishes, and keep them half full of water, or more; and as the ants are not good swimmers, they never trouble the bees. A long bench can be made, and several hives put on it. The hives could be close together, by facing every other hive the opposite way. My father used to do that way nearly fifty years ago, in the woods where ants were bad. My bees are working splendidly. I hope that we will have a good season for bees. They are working on willows and box-elders, and will soon

be working on plum-blossoms, if the weather keeps good. Grass is growing rapidly, and leaves and blossoms are coming out. Bees wintered pretty well, generally, last winter, though a few colonies were lost, as usual. I hope to get a good increase of colonies this year. I like the AMERICAN BEE JOURNAL very much, and would not do without it as long as I could get the small sum of $1.00 to pay for it.

Good Results in Wintering.—Samuel Flory, South English, Iowa, on April 22, 1889, writes:

I have wintered my bees in the cellar the last two seasons with very good results. In the fall of 1887 I put in 25 colonies, and all came through nicely. Last fall I put in 33 colonies for winter, and when I took them out this spring, only one was dead, and that one I did not much expect to winter. All are doing finely so far. I hope we will have a better honey season this year, than we have had for the last two years.

First White Clover Blossoms, etc.—Geo. W. Morris, Cornishville, Ky., on April 20, 1889, writes:

My bees wintered without the loss of a single colony, and are in a better condition than I have ever had them before at this season of the year. Drones have been flying for about ten days. White clover looks tolerably fair at present, and if not grazed too closely, I hope for a moderate crop of honey from this source. I saw a few white clover blossoms to-day—the earliest that I have ever seen them. Mr. J. E. Pond, on page 250, gives my idea exactly, in regard to the size a bee-hive should be.

White Clover Looking Well.—B. A. Manley, Milo, Iowa, on April 26, 1889, writes:

My 22 colonies of bees wintered without any loss, all in excellent condition, and are doing better than I ever knew bees to do at this time of year. Some of them are working in full force in the sections, gathering honey from fruit-bloom, which is abundant. The prospect for a good honey crop was never better; white clover is looking well, and the rains have come just as we need them. I have been supplying my bees with plenty of room, to prevent early swarming, and yet the indications are that we are to have plenty of early swarms. Drones have been flying for more than a week, and young bees are playing outside in fine condition.

Bee-Keeping in Texas.—G. F. Davidson, Fairview, Tex., on April 17, 1889, writes:

I have about 100 colonies of the meanest hybrid bees that I ever saw. A friend of mine bought 46 colonies last year, and let me have them to work, and I did the best I could with them. I saved 32 swarms, and produced only about 1,000 pounds of extracted honey. It rained so continuously last year through the spring, that the nectar was all washed out of the cat-claw and cactus plants. These are our main dependence for a spring crop of honey, and all that my bees gathered was from the flax or "broom-weed," in the fall.

1. Are you acquainted with the cat-claw and cactus honeys? If so, how do they compare with the honey of the North?

2. How long should combs be used in the brood-chamber?

3. Will some practical bee-man of Southwestern Texas, give, in the BEE JOURNAL, his management of bees both in winter and in summer?

[1. We are not familiar with the honey from "cat-claw" or "cactus." If samples were sent we could judge of its quality.

2. Combs will last a long time in the brood-chamber, but it would be desirable to melt them up and give the bees comb foundation, after 8 or 10 seasons—for the cocoons left in the cells, from brood, make them smaller after long use.

3. We request Judge Andrews to give us an article on management of bees in Texas, as desired by our correspondent.—ED.]

Bees Doing Well.—J. R. Lawton, Lafarge, Wis., on April 19, 1889, says:

Bees are doing well. I put them out of the cellar on March 26, and they found pollen the first day. All had young brood. If we have any honey for them to gather, I do not know why they will not do well. I have 42 colonies, and I want 100 pounds from each, of extracted honey.

Strong Colonies—White Clover—L. J. Waldo, Merrow, Conn., on April 24, 1889, writes:

My bees have wintered finely; I have not lost a single colony, and never saw bees so strong at this time of the year. I have some colonies so strong that they hang out on the hive as much as they do in July. The hives are just solid full of bees. I shall look for swarms as soon as apple-trees bloom. I think that this is going to be a fine year for honey in this part of the country. I believe that I never saw white clover come up any thicker than it has this spring. Bees are just booming on maples now. I winter my bees on the summer stands, part in Langstroth hives, and part in Bristol chaff hives.

A Large Colony of Bees.—Mr. Sanders Johnson, Odon, Ind., on April 17, 1889, says:

Bees are doing finely on fruit-blossoms. I have a fine colony of Italian bees on a 5-foot green, that I have had four years. It casts three large swarms every spring—a half-bushel measure would hardly hold the colony. I have been offered all prices, but no sale. I value the colony at $25, but that would not buy them. It was caught, or found, in the woods four years ago.

Bees Ready for Work.—Mrs. H. A. Gale, Shelby, Ind., on April 15, 1889, writes:

Last fall I had 20 colonies of bees, and all wintered well. I put 5 of them into the cellar as an experiment, and those on the summer stands did as well as those in the cellar. All are in good condition for summer work. On March 10 they gathered the first yellow pollen, and had a general rejoicing in gathering it, as it was new, and better than the old. The bees had a good cleansing out, and are now prepared to stow away for young brood. The elms are flowering and yielding plenty of pollen; also catkins and the willow, which yield abundant honey; and the maples and birches that skirt the banks of the Kankakee river are loaded with bees that come back heavily laden with the sweet nectar, to furnish food for the young bees that soon will hatch. From recent reports, bees in this county have wintered in good condition, with very small loss, and have plenty of honey until white clover comes, as everything is much earlier than last season. My bees paid me better than my cows last year. I have always found a ready market for my honey at home and abroad, and never have enough to supply the orders as they come in.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble, and at the same time help to scatter apicultural knowledge and promote the welfare of our pursuit.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Honey.—We have for sale a quantity of Extracted Honey in kegs holding about 220 pounds each, which we are selling, free on board the cars, at **8** cents per pound for Amber and **9** cents per pound for White.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

DORÉ ART PORTFOLIO,

PRICE, 50 CENTS,

Will be CLUBBED with the AMERICAN BEE JOURNAL, at the low price of $1.25, postpaid.

This magnificent Art Portfolio is in size just 11x14 inches, and besides a picture of Gustav Dore, the great French Artist, it contains the following beautiful engravings: Expulsion from the Garden of Eden—Entering the Ark—Noah Cursing Ham—Samson and Delilah—Ruth and Boaz—Death of Saul—The Judgment of Solomon—Daniel in the Lion's Den—Daniel Confounding the Priests of Baal—The Nativity—Christ Healing the Sick—Sermon on the Mount—The Disciples Plucking Corn on the Sabbath—Jesus Walking on the Water—The Agony in the Garden—Death of the Pale Horse. Seventeen handsome full page plates under one cover.

Standard Atlas of the World.

To any one sending us, direct to this office, **Five NEW Subscribers** for one year, with $5.00 (renewals not to count), we will *present* this beautiful Atlas, by mail, postpaid:

This ATLAS contains large scale Maps of every country and civil division upon the face of the Globe.

It is beautifully illustrated with colored diagrams, showing the wealth, the debt, the civil condition of the people, chief productions, the manufactures and the commerce, religious sects, etc., and a superb line of engravings of historical interest and value, together with many new and desirable features which are expressly gotten up for this work—among which will be found a concise history of each State.

Price, in best English cloth binding (size, closed, 11x14 inches; opened, 22x14 inches), $4.50.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00...	
and Gleanings in Bee-Culture	2 00....	1 75
Bee-Keepers' Guide	1 50....	1 40
Bee-Keepers' Review	1 50....	1 40
The Apiculturist	1 75....	1 65
Bee-Keepers' Advance	1 50....	1 40
Canadian Bee Journal	2 00....	1 80
Canadian Honey Producer	1 40....	1 30
The 8 above-named papers	5 65....	5 00
and Langstroth Revised (Dadant)	3 00....	2 75
Cook's Manual (**old edition**)	2 25....	2 00
Bees and Honey (Newman)	2 00....	1 75
Binder for Am. Bee Journal	1 60....	1 50
Dzierzon's Bee-Book (cloth)	3 00....	2 00
Root's A B C of Bee-Culture	2 25....	2 10
Farmer's Account Book	4 00....	2 20
Western World Guide	1 50....	1 30
Heddon's book, "Success,"	1 50..	1 40
A Year Among the Bees	1 75....	1 50
Convention Hand-Book	1 50....	1 30
Weekly Inter-Ocean	2 00....	1 75
How to Propagate Fruit	1 50....	1 25
History of National Society	1 50....	1 25

Do not send to us for sample copies of of any other papers. Send for such to the publishers of the papers you want.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Triple Lense Magnifiers have been so often called for that we have concluded to keep them in stock for our subscribers to inspect bees, insects, etc. See page 212.

Price, by mail, 80 cts.; or the BEE JOURNAL one year, and the Magnifier, for $1.50.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

Honey and Beeswax Market.

DETROIT.

HONEY.—Best white 1-lbs., 14@15c. Market is dull and lower, but not overstocked. Demand slow.
BEESWAX.—22@23c.
Apr. 30. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—We quote: White 1-lbs. 15@16c.; fall or dark, slow at 12c.; 2 lb. California white, 13@14c.; amber 11@12c. Extracted, in 60-lb. cans, 7½@8c; for white, 7@7½c.; for amber, in barrels or kegs, 5@6c. We think that our market will be cleaned up before new honey comes in.
BEESWAX.—18@20c.
Apr. 22. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Demand limited to local wants, which are small. We could sell some to country points in barrels and ½-barrels at 6½@7c. for extracted; in cans, 7½c.
BEESWAX.—22c. for prime.
Apr. 22. D. G. TUTT & CO., Commercial St.

CHICAGO.

HONEY.—Our trade is light; no large lots on hand and what there is consists chiefly of dark comb, and not salable in quantities. Choice white comb, 1-lb. sections, 16@17c.; dark grades from 10@12c. Very little demand for extracted, but prices remain at 7@9c., according to quality and package.
BEESWAX,—22c. R. A. BURNETT.
Mar. 25. 161 South Water St.

DENVER.

HONEY.—White, in 1-lb. sections, 16@18c. Extracted, 7@10c.
BEESWAX.—18@20c.
Mar. 26. J. M. CLARK & CO., 1409 Fifteenth St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 16@17c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c. If damaged and leaky, 10@12½c. Extracted, white, in barrels, 8@8½c.; ½-barrels, 8½@9c.; amber in same, 7@7½c.; in pails and tin, white, 9@9½c.; in barrels and ½-barrels, dark, 6@6½c. The demand is fair.
BEESWAX.—20@22c.
Mar. 27. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—Market is bare of comb, except some small lots of buckwheat which is selling at from 10@12c. No buckwheat extracted. Cuba and San Domingo extracted, 67@70c. per gallon.
BEESWAX.—24c.
HILDRETH BROS. & SEGELKEN,
Mar. 25. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 18@20c.; best 2-lbs., 17@18c. Extracted, 8@9c.
Sales have been checked a little on account of maple sugar and syrup being so plentiful. Sales of honey are very slow.
Apr. 23. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNAT

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@15c. Demand is slow, and prices low.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Mar. 21. C. F. MUTH & SON, Freeman & Central Av.

Advertisements.

WANTED.—By two young men of good habits, aged 28 and 18, a situation with some bee-keeper where they will have a chance to learn the business. The elder has had some experience, both are mechanics by trade, and willing to go anywhere and make themselves generally useful. Only moderate wages expected. Address,
I. G. CHATFIELD,
19A2t 44 Cook St., WATERBURY, CONN.

IF you want **Italian Queens** as good as the best in the U. S., reared from the eggs in full colonies—Tested $2, Untested $1, 6 for $5, Mismated Queens 50c.—send by registered letter, or Money Order on New Market, Ala.
B. R. TONEY, PADGETT, Jackson Co., Ala.
19A4t

HANDSOME SECTIONS.

WE have a limited quantity of One-Pound Sections, 4¼x4¼, a trifle less than two inches wide, with narrow tops, in packages of 1,000 each. They are manufactured from extra white lumber, are very uniform, making them the finest and most attractive honey-section in the world. Price, $3.50 per package.
THOS. G. NEWMAN & SON,
923 & 925 West Madison-Street, - CHICAGO, ILLS

LOOK HERE!

TO reduce my stock I will sell 2 Langstroth frames of brood and ½-lb. of Bees for $1.50; 3 frames and 1 lb. of Bees, $2.00. Bees per lb. $1.00. Tested Italian Queen, $2.00. Also Full Colonies for sale. Satisfaction and safe arrival guaranteed. No foul brood.
H. L. PANGBORN,
17A3t MAQUOKETA, IOWA.
Mention the American Bee Journal.

A TESTED QUEEN

FOR $1.00. For particulars, see the April Number of the BEE-KEEPERS' REVIEW—which will be sent free, and with it will be sent the May and June numbers for 1888. The April number discusses "Contraction of the Brood-Nest." Price of the REVIEW, 50 cts. a year. Back numbers furnished.

The Production of Comb Honey is a neat little book of 45 pages—price 25 cts. This book and the REVIEW one year, 65 cts. For $1.00, the REVIEW will be sent for two years, and the book "thrown in." Stamps taken—either U. S. or Canadian.

Address, **W. Z. HUTCHINSON,**
19A1t 613 Wood St., FLINT, MICH.
Mention the American Bee Journal.

TESTED Italian and Albino Queens, $1.00; 4-frame Nuclei with Tested Queen, $3; Full Colonies in Heddon hives, $3.50.
GEO. STUCKMAN,
19A1t NAPPANEE, IND.
Mention the American Bee Journal.

FOR SALE—A 4-Langstroth-frame Stanley Automatic Honey-Extractor, used only one season. Too large for my use. Price, $12.
Address, **GEO. L. TRANSUE,**
19A1t EASTON, PA.
Mention the American Bee Journal.

HARD-TIME PRICES. 25 pkt. collection of Garden Seeds, your selection from our list, *post-paid*, 50c. List free. J. G. Kreider, Milton Grove, Pa.
19A1t

HOLY-LAND QUEENS

A Specialty. BEES by the lb. and Langstroth frame. Bee-Keepers' Supplies.
GEO. D. RAUDENBUSH,
445 Chestnut St., - - READING, PA.
19D4t
Mention the American Bee Journal.

PATENTS THOS. P. SIMPSON, Washington, D. C. No atty's fee until Patent obtained. Write for Inventor's Guide.
17D6t

GREAT REDUCTION IN PRICE OF

JAPANESE BUCKWHEAT!

ONE-HALF bushel, 75c.; 1 bushel, $1.35; 2 bushels, in new grain-bag, $2.50. Shipments prompt. Satisfaction guaranteed. I have sold nearly 100 bushels this spring, and have about the same amount on hand, which I will sell at the above low prices. Strictly first-class Seed. Make Money Orders payable at Berlin, Wis.
M. P. CADY,
19A4t POY SIPPI, Waushara Co., WIS.
Mention the American Bee Journal.

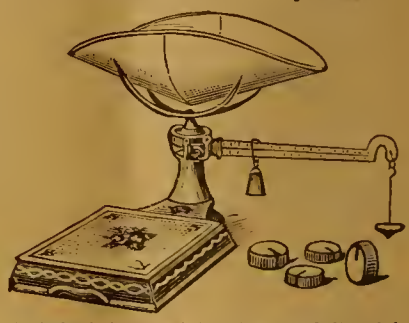
ITALIAN and Carniolan Queens by return mail. Tested, in May, $2.00. Reared in June and July, until further notice, Untested Queens, $1.50; Tested, $2.00. Tested and Selected, $2.75. And also how to introduce Queens. **PERRY BROS.,**
19A1t LA HARPE, Hancock Co., ILLS.
Mention the American Bee Journal.

TESTED Italian Queens, $1.25 each. Untested—ready to ship about June 1st—75 cts. each, or 3 for $2.; 3-frame Nucleus with Tested Queen, $3.25 each—BEES 90 cts. per lb. **I. R. GOOD,**
19Atf Nappanee, Elkhart Co., Ind.
Mention the American Bee Journal.

TANSY PILLS! Safe, Certain and Effectual. Particulars 4c. WILCOX SPECIFIC CO., Phila., Pa.
17A1y
Mention the American Bee Journal.

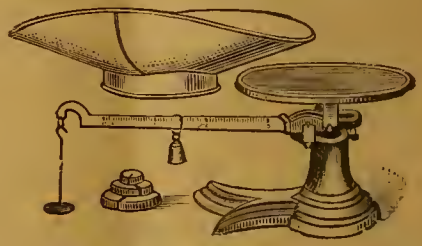
Useful Scales

The Union or Family Scale.



This Scale has steel bearings, and it weighs from ½-ounce to 240 pounds. Price, with a Single Brass Beam, as shown in the illustration, $3.00. With Double Beam for taking the tare, $3.50.

The Little Detective Scale.



This little Scale is made with steel bearings, and a brass Beam, and will weigh accurately ¼-ounce to 25 pounds. It supplies the great demand for a Housekeeper's Scale. Prices:

Single beam, no scoop	.....	$2.00.
" " tin "	.....	2.50.
Double " no scoop	.....	3.00.
" " tin "	.....	3.50.

☞ All orders filled promptly.
THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL.

Eaton's Improved
SECTION-CASE.
BEES AND QUEENS. Send for free catalogue. Address
FRANK A. EATON,
3D17t BLUFFTON, OHIO.
Mention the American Bee Journal.

Send for Early Queens
TO J. N. COLWICK:

1 Tested Italian,	before	May 15,	$2.25;	after,	$1.75.
3 "	"	"	6.00;	"	4.50.
1 Untested "	"	"	1.00;	"	.90.
3 " "	"	"	2.75;	"	2.50.

For 1-Frame Nucleus, with any Queen add, $1.00.
☞ I give a discount of **10** per cent. on Orders booked for the next 20 days. Safe arrival and satisfaction guaranteed. Send for Price-List.
9D8t **NORSE, Bosque Co., TEXAS.**
Mention the American Bee Journal.

EVERY BEE-KEEPER SHOULD TRY
THE SUCCESS HIVE!
TRUE TO ITS NAME!

SAFE winterer, easy in manipulation, durable, cheap, and, for large yields of honey, is unsurpassed.

Sections, Section-Cases, Comb Foundation

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THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD.
PUBLISHED BY
THOS. G. NEWMAN & SON,
CHICAGO, ILL.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. May 18, 1889. No. 20.

EDITORIAL BUZZINGS.

May Fowers are coming,
The bees are humming,
And the small boy hankers for early fruit;
The skies are bluer,
The gales are fewer,
And the damsel is trimming her bathing suit.

Thomas Gavin, of Warburton, Ont., is dead. He was 31 years of age, and his death was caused by diabetes. He was one of our subscribers, and was an enthusiastic lover of bees.

We Regret to learn that Mr. A. J. Hatfield, of South Bend, Ind., unfortunately broke his leg last fall, and is now only able to get along with one crutch, but expects to be able to dispense with that soon.

Golden Bees.—Mr. W. P. Henderson has sent to us from his Tennessee apiary, some of the brightest yellow bees we ever saw. In fact, the black or dark is barely enough to discern. They are as yellow as the yellowest queens, and when on the wing, look much like bright yellow queens. They are docile, and Mr. Henderson says, they are fine workers, even if they are so grandly dressed.

Is He Reliable?—We often receive a postal card containing something like this: I want to ship some potatoes, berries, eggs, honey, chickens, fruit, or some other produce, and, naming some person, the question is asked, "Is he reliable?" or "Is it safe for me to ship to him?" Now while we desire to accommodate our friends, still it is quite a task to lay on us to answer such questions. The better way would be for those interested to step into a home Bank, and have the banker look them up, through Bradstreet's or Dunn's commercial agencies.

Saved by the Union.—How often, when requested to join "The National Bee-Keepers' Union," will some one ask, "What good will it do me?" The very fact of belonging to such an organization is of itself not only an honor, but also a power in the defensive! If a jealous or prejudiced neighbor finds that a bee-keeper belongs to a "Union" for the defense of the pursuit—he will *think twice* before rushing into a lawsuit.

Here is a case in point, and an excellent illustration of the moral effect of being a member of the Union: Rev. Robert Carver, of Manton, Mich., a member of the National Bee-Keepers' Union, wrote to the Manager that he was sued by a jealous neighbor to appear before a prejudiced Justice of the Peace, for maintaining a nuisance. The damage was placed at $100 for trespassing bees. Threats were made to drive him and his bees out of the village.

As Manager of the National Bee-Keepers' Union, we counseled him as to what to do and how to proceed; told him to hire a good lawyer, and assured him that the Union would *stand by him* as long as he was in the right, and defend his rights in a moral as well as a financial way.

The case was called, and an adjournment was made until April 29. Mr. Carver retained a lawyer, showed him the letter, and also the published "Reports" of the "Union." He read the latter carefully, went down town and talked with the opposite attorney, and some of those incensed against the bees. The result was that they were quite willing to compromise the affair.

By mutual agreement the bees were to be moved a few rods from the road, and the suit dropped, leaving the parties who brought suit to pay all costs.

Mr. Carver writes as follows: "A friend of mine happened in, when several of them were talking about the matter, and he heard the village marshal say to them that if they went on with the case, they would have all the bee-fraternity to fight, and would have their hands full."

This is another triumph for the Union. The counsel of its Manager, and the moral effect of being a member of an organization for the defense of the pursuit—caused the prosecuting party to withdraw from the field and pay all the costs!

Will our friends please chalk up another victory for the Union!

Uncapping-Knife.—A person signing himself "Inventor," asks if all bee-keepers are "satisfied with somebody's uncapping-knife, or is there a demand for a simply-constructed, easily-operated uncapping machine, that will do perfect work in one-half or one-third the time required with a knife? Such a machine would cost ten dollars."

We cannot answer for *all*, and therefore give any one a chance to answer the question. Perhaps the time has arrived for a machine to be invented. If so, it will be done, for all good and useful inventions come in just the right time.

In the Controversy concerning "large and small hives," between the Messrs. Dadant and Mr. Hutchinson, we shall not interfere—they are well able to discuss the matter intelligently and thoroughly. We desire, however, to make a few remarks about the article appearing in our columns, instead of the *Review*. To refuse to publish an article from the Messrs. Dadant, or any prominent apiarists, is more unpleasant to an editor than it is to the writer of the article—but there are occasions and circumstances when such an unpleasant duty is to be performed.

Some four or five years ago we received an article from the most prominent and popular apiarist in America, and one of the best of men the world contains. It was very faulty, and full of unwise suggestions and notions, and we deemed it best, both for the author as well as apiarists generally, not to publish it, and we wrote him a private letter to that effect. It was an unpleasant matter to us, and "mortified" our friend and correspondent considerably—but time has shown that our judgment was correct. He was saved from the "mortification" which would have ensued, and is now *glad that the article never was published!*

We fully agree with brother Dadant, that an editor should be "impartial" in giving full latitude to both sides of every question, and we fully believe that it is *the intention* of all editors of bee-periodicals to do so, but they are "frail" like other men; they err in judgment (at least we realize that we do, and judge others by ourself); they make mistakes, and have to act "on the spur of the moment" in deciding many questions, which, on more mature consideration, would have reversed the decision.

It is best, generally, not to judge our brethren of the press too severely—in fact they need sympathy more than censure—charity rather than rebuke!

We feel quite certain that Bro. Hutchinson will gladly re-publish Bro. Dadant's article with his reply, for we know that they all have none but the most kindly feelings towards each other. "Let brotherly love continue," is sound advice, and applicable to all ages and under all circumstances.

Bee-Enemies are numerous, and Mrs. S. E. Sherman, of Salado, Texas, asks if martins are among the number of bee-catchers. King-birds are often called bee-martins, and we presume these are what our correspondent intends to ask about. They are very destructive to bees, but seem to prefer the drones.

A Supplement to the *American Apiculturist* for May is received. Mr. Alley occupies seven pages in an article on "Rearing Queens in Full Colonies without Depriving the Bees of their Queen." It seems many have been experimenting in this direction at the same time, and probably without a knowledge of each other's experiments. Truly, this is a grand age of development.

GLEAMS OF NEWS.

Small Hives.—On page 124, Mr. B. Taylor, a Minnesota bee-keeper having 260 colonies of bees, stated that he had secured 7 tons of honey in the last poor season, and credited his success to the small hives he was using, and offered to describe them and detail their management in the AMERICAN BEE JOURNAL. He has sent one of the hives to our Museum, and has this to say respecting it:

The bee-keeper, like the farmer, secures his harvest with a reaper—the hives and fixtures are his harvester; the log-gum is the ancient "sickle;" the box-hive is the "cradle;" and the movable-comb hive is the "self-raking reaper" of the apiarist. The needs of 1889 now demand the "self-binder."

It must combine all the good points of all previous hives; must be cheap, and easy to make; suitable for breeding bees in summer, and keeping them safely in winter; convenient for hiving swarms, and moving in the home yard; and always ready and safe to move to out stations. It must be suitable to handle by whole hives, or by single frames, without any loose parts or complicated machinery; equally suitable for the securing of either comb or extracted honey, and to that end it must be capable of easy contraction, and of tiering up to any required height; with a bee-space, and no more, between the upper and lower frames of such tiered hives, whether with or without the queen-excluding honey-board between them.

Mr. Editor, I send you a sample hive that meets the above-mentioned needs. It is of the right size (1,000 inches of comb surface); the beveled rabbet of the top and bottom of the sides enables it to rest upon a plain bottom-board, and to have a plain, smooth board for a cover, without any ⅛-bee-spaces or other evils. The fixed frames give all the advantages of the closed-end frames, and the manner of suspending them in the hive avoids their faults, among which is, its inconvenience of handling by single frames.

I can remove a frame in any part of the brood-nest in this hive, with my naked fingers, without any prying or other force (after loosening the compressing screws), and return them with equal ease, without hearing the "bones" crack, as we do in returning other closed-end frames in a populous hive.

This frame is right for any depth, but you cannot reverse them. I once made them reversible, but soon found that, in the way I used them, the bees would build the combs solid in the frames, without reversing; and there is no other reason for reversing, as alternating secures all desirable ends.

I use the hives with two depths of frames, 8 inches inside for the full size, and 4½ inches for the double ones. They are exactly alike, except as to depth; and the small size has its frames suspended on a plain rabbet, as I do not expect to handle single frames much in this size. I use them large and small, in about the same way, and sometimes the two sizes together. I am as yet undecided as to which size is best, if but one was used; but I think I shall use the small size in the home bee-yard, and the large size in the out apiaries.

I do not claim anything new in this hive, only old things in new and improved ways. I am just finishing 300 hives, and 600 cases, for my own use the coming season, so it will be seen that I intend to get some honey, if there is any around.

With the editor's permission, in a future article, I will detail my way of using these hives, and handling my bees in these three ways, viz: with fair increase, with small increase, and without any increase.

I see that nearly all bee-keepers object to any kind of glass in supers. I shall offer no apology for the peep-hole in my hive. Others may remove a shade-board with its 15-pound stone every time they take a squint at the bees; but I will see all I need to know in ten hives, while they are uncovering one.

Mr. Taylor does *not* describe his management in the above, but promises it in another article. That is more like what was wanted—the key to the production of the "seven tons of honey in a poor season," would interest our readers much more than a description of the hive.

For all that we can discover, the hive is practically the same as other shallow hives, and has a wood and zinc slatted honey-board. It seems strange that he should have been using it for eight years, and yet at least two very similar ones have been invented and patented within the past three years.

This article is very appropriate under the heading of "Gleams of News."

Laying Workers.—Thos. M. Pierce, of Wickford, R. I., asks for information, and writes as follows:

Last fall I united 2 good colonies, and left the queens to settle their own claim; and this spring the hive contains a good, strong colony; but instead of a queen, a laying-worker. I do not know what to do. I have looked into all the books, etc., I have, and cannot make up my mind what to do. The thing is quite a conundrum to me. I am sure it is a laying-worker, as many cells contain three eggs, and the brood is in all frames, a few here and a few there. Young, small drones are running around on the comb, queen-cells are started, but the cells are never capped, as the grubs all die after a few days. All the capped brood in the worker-cells is rounded up like drone-brood, if anything more so.

The conundrum can be solved in about as good a way as any, by breaking up the colony, giving a frame or two to weak colonies to build them up. It would be difficult to get those bees to accept a queen while having these annoying pests—laying workers.

Nurserymen.—The Fourteenth Annual Meeting of the American Association of Nurserymen will begin at Chicago, Ills., June 5, 1889. Railroad tickets for the round trip, from any part of the United States and Canada, may be secured by any person, whether a nurseryman or not, at a rate of one-third fare for the return trip; a great opportunity for all who would like to visit the great metropolis of the West. Tickets are good for any train, going or returning; no crowd, no jam. Reduced rates are also secured at the Grand Pacific Hotel, Chicago, the head-quarters of the society.

This will be a notable gathering of distinguished nurserymen and horticulturists, and an interesting and instructive programme is offered. June 5 will be the most delightful season of the year for such an excursion—cool weather, delightful views, Nature adorned in her most attractive garments. For circular giving full particulars about securing reduced railroad fare, programme, etc., apply to Charles A. Green, Secretary, Rochester, N. Y.

Transferring Bees.—As many are now inquiring how to transfer bees from box-hives, we give the following from the *American Agriculturist* for May—just received:

A good bee-smoker is needed so that you can have full control of the bees. They should be smoked thoroughly before operations begin, and at frequent intervals before attempting to open the old hive. This will allow ample time for them to fill themselves with honey, which they never fail to do if thoroughly smoked. Turn the hive bottom side up, and with a cold chisel and hammer pry open and cut the nails from two sides of the hive. This will lay the combs bare, so that they may be reached conveniently. Lay the frame to receive the combs flat upon a board which has been previously guttered out one-half by one-half inches on every two inches of surface. This will allow a wooden needle to pass under the comb after it is fitted into the frame. By this means a cord of hard twine is drawn over the comb and around the entire frame and securely tied, spanning the frame every two inches. After the combs have all been removed, cut, fitted and tightly bound into the frames, place them carefully into the new frame hive and raise the old hive, which contains the majority of the bees. With a brush of soft material, or a stiff feather, gently remove the bees into the new hive, or to its entrance. In arranging the combs, place those containing the brood in the center, and see that the brood occupies a compact mass in the hive. In a day or two the bees will have fastened the combs in the frames, and will ultimately remove the twine fastening. They cannot do this if wooden strips or tin fastenings are used. Only combs that are straight should be used; fill the remainder of the frames with foundation, which I would recommend rather than crooked combs, but combs containing brood should all be used.

Making Comb Foundation.—F. C. Erkel, of Le Sueur, Minn., asks these questions:

I keep 50 colonies of bees, and desire to secure all the white honey possible (such as basswood and clover) in the comb, and to extract the dark and autumn-flower honey. I have over 200 empty combs, and 10 combs in each of my 50 Langstroth hives; the combs were built from starters, so that they are not as straight as they might be, and have some drone-comb in them. 1. With that number of colonies, would it pay to have a foundation-mill for my own use? 2. If I had a mill of my own, would it be advisable to melt up those combs and use full sheets with wired frames? 3. If I had to buy foundation, would it be advisable to melt up the poorest of those combs?

1. We do not think it would pay to fuss with and make foundation for 50 hives, when the prices of it, already made, are as low as at present.

2. We should not advise the melting up of any good combs—but the "crooked" and black ones should go to the melting pot—substituting comb foundation for them, wired or not, as you choose.

3. Our advice would be the same, no matter whether you had a "mill" or not.

A Nebraska Apiary.

The engraving on this page represents one of the many excellent apiaries found in the State of Nebraska—a State which is rapidly taking its place among those noted for its fine apicultural productions. The following is written by Mr. J. M. Yonng, the owner of the apiary shown in the illustration :

The photograph from which this engraving was made, is a very correct one, and I wish that I could show a better picture here ; but the engraver has overlooked, and has changed, things about somewhat, and from this fact the illustration is faulty.

I now have the entire apiary and buildings removed from the old stamping ground (at Rock Bluffs) to a new location, 1¼ miles south of Plattsmouth. The hives are placed in their new location, as well as the building, in nearly the same way as they are seen in the engraving—in fact I have tried to make it about the same.

I hope some day to show a picture of my new location, as I have a very pretty site to work on ; and as I have already put on a title for the new location—"The Home of the Honey-Bees," we intend to make it the home of the bees for a great many colonies, at least as many as I can make profitable for one locality.

The large hives that are shown in the picture are the winter and summer chaff hives, the sides and ends of the lower story being packed with chaff when the hive is made. Since the first introduction of this hive, it has given excellent satisfaction in wintering.

The building in the background is the honey-house and work-shop combined. The upper part of the building is used principally for ripening extracted honey, the honey being packed in open vessels. The direct rays of the sun keep this part of the room of a heated temperature, and for ripening honey, I would desire nothing else better than this arrangement.

The engraver has put foliage upon the trees (which are fruit-trees), and makes it appear to the eye that the photograph was taken during the season when the leaves were on the trees; but it was taken during the fall, when all vegetation appeared winter-like.

Apiary of Mr. J. M. Young.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

Chance for an American Girl.

The American girl may aspire to be Queen of England. Sir Edward Sullivan, who is a very serious Tory of the old Protectionist school, says so, and he is not to be confounded with Sir Arthur Sullivan, who sets Mr. Gilbert's nonsense romances to music. Prince Albert Victor, eldest son of the Prince of Wales, is 25, and his royal grandmother desires to see him married and settled ; but there seems to be no eligible Protestant bride for him on the Continent, and those unreasonable Radicals in Parliament will be certain to make themselves disagreeable when the question of settlements is raised in that body.

So the suggestion is offered in good faith by Sir Edward Sullivan, as appears from our cable letter, that he shall marry an American, and thereby promote an era of good fellowship between the two great branches of the English-speaking race. This is highly complimentary to the typical American girl, who may be pictured as blushing coyly at the novel idea.

Then there are doubtless millionaires by the score who stand ready to relieve an English Ministry of any and all financial embarrassments by dispensing entirely with Parliament votes in supply.—*New York Tribune.*

MAY.

The finches are singing,
The bright bees are humming,
The grasses are springing,
The Summer is coming,
For May is here.
With sunshine and shadow,
Refreshing and cheering,
How green is the meadow!
Where daisies appearing,
As stars, shine out clear.

The tree-tops are swaying,
With nests on their branches;
The rabbets a-playing,
Or sit on their haunches,
As striving to hear
The church bells' far pealing,
Now swelling, now sinking,
Through the wood, the stream stealing,
Seems joyously thinking
Glad Summer is here.—*Sel.*

QUERIES AND REPLIES.

How and When to Renew the Old Combs.

Written for the American Bee Journal

Query 631.—1. What is the best procedure for the renewal of old combs in hives which bees have occupied for 12 or 15 years? 2. When is the best time for such procedure?—Iowa.

1. Use full sheets of foundation. 2. Any time from April to September.—WILL M. BARNUM.

Cut them out before they are occupied with brood in the spring.—J. P. H. BROWN.

1. The Heddon method of transferring. 2. About swarming time.—C. H. DIBBERN.

1. Remove them and render them into wax. 2. In early spring.—J. M. HAMBAUGH.

1. Use sheets of foundation. 2. Any time, except during a good honey-flow.—MAHALA B. CHADDOCK.

Transfer about the usual swarming-time, *a la* Heddon; as described in my "Manual," on page 219.—A. J. COOK.

I have never had any combs too old in my apiary to be useful, and I have kept bees 20 years.—G. M. DOOLITTLE.

1. If you are satisfied that they *must* be renewed, cut them out and fill the frames with foundation. 2. After you get all the brood out, in June or July.—H. D. CUTTING.

I do not know that I fairly understand the question. 2. During fruit blossom, as a rule.—J. E. POND.

1. Melt the old combs into wax, and give frames entirely filled with foundation. 2. In the spring—perhaps about the time of apple-bloom.—MRS. L. HARRISON.

1. I do not know how to "renew" old combs. If it is desired to replace the old with the new ones, I should say that the best method would depend upon how surplus honey is secured. If to be comb honey on the contraction plan, and swarms are hived on empty frames with starters, and a queen-excluding honey-board is used, new combs will be secured. If the surplus is to be extracted honey, furnish the surplus frames with full sheets of foundation. 2. When securing surplus.—A. B. MASON.

I never renew them on account of age alone; but probably the best way to renew them is to melt them up, and replace with worker foundation.—C. C. MILLER.

1. I am not certain that they *ought* to be renewed. 2. If you are sure that they are worthless, select the time when they have the least honey and brood in, which would be in April or May.—EUGENE SECOR.

1. Take them out and replace them with new *worker* combs, or with comb foundation. But we would not remove them unless *very, very* old and thick. As long as the queen breeds in them, they are as good as new combs. 2. The best time is spring—April or May.—DADANT & SON.

1. If you must renew them, take out one or more at a time, as you can find them empty, and replace them by putting frames filled with foundation in the brood-nest as needed. 2. Such as you find empty, may be taken out at any time when bees can fly, but frames of foundation should only be put in when some honey is coming in.—R. L. TAYLOR.

1. My plan is to work out the old combs gradually at any time that it can be done with the least labor to myself, and disturbance to the labor of the bees. I sort out many poor combs in the spring, and many when making up nuclei for queen-rearing.—G. W. DEMAREE.

1. Drive or shake the bees upon foundation, and after the brood in the old combs has emerged, shake these new bees into the same hive with the others, and melt the combs into wax. 2. Any time when the combs have but little honey.—J. M. SHUCK.

1. Combs that have been occupied for 12 or 15 years do not need to be renewed. I would not care to use them more than 40 years, however. 2. If portions of them, from being moldy or from any other cause, become unfit for brood-rearing, they may be cut out at almost any time that may be convenient.—M. MAHIN.

1. Place them in the supers of hives, if they contain brood, till it hatches out; then extract the honey and melt up the combs. In renewing, take out alternate combs, and insert frames with full sheets of foundation till all the combs are renewed. 2. The above procedure may be carried out at any time in the season.—G. L. TINKER.

Exchange the frames of old combs (if they *must* be renewed) for frames filled with comb foundation. It can be done best in the spring, about the time of fruit-bloom.—THE EDITOR.

Central Michigan Convention.—W. A. Barnes, of DeWitt, Mich., the Secretary of the Association, sends the following report:

The Central Michigan Bee-Keepers' Association met in the Supreme Court Room on Wednesday, May 1, 1889, and the election of officers resulted as follows; President, Rev. J. H. Ashworth, of Lansing; Vice-Presidents, S. E. Vanetter, of Williamston, Miss Minnie Brindle, of Bath, and W. O. Wilson, of Okemos; Secretary, W. A. Barnes, and Treasurer, N. U. Goodnoe, of Lansing. The convention adjourned to meet with the State Bee-Keepers' Association next fall.

A Queer Hive.—Mr. E. L. Dickinson, of Central Point, Calif., writes to the Pacific *Rural Press* this item, under the above caption:

A very novel and curious bee-hive was discovered recently at Dutch Corners. It consisted of a straw-burning engine, which a swarm of bees had taken possession of as their home. Every attempt to dislodge them had failed. The engine was stored in an open shed, facing the road; hence it was very desirable to get rid of the bees.

The proprietor of the Dutch Corners' hotel, offered me the bees if I would take them. Accordingly I went at it, and in a few minutes had them safely hived in a box. I moved them 80 miles, and set them up. On being liberated they immediately went to work.

There were in the engine about 14 pounds of honey of a very fine flavor, and nearly pure white, from alfalfa, of which there were large fields near by. The means of capturing them was simply smoke and water. After capturing, I found the queen and clipped her wings, and all trouble was over.

Scientific Queen-Rearing, as practically applied; being a method by which the best of queen-bees are reared in perfect accord with Nature's ways. This is the title of a new book of 176 pages, by G. M. Doolittle, of Borodino, N. Y., which is now ready for delivery.

In this book Mr. Doolittle details the results of his experiments in rearing queen-bees for the past four or five years, and is the first to present his discoveries to the world. It is published in time for every progressive bee-keeper to test the various discoveries which it details, during the present season. Send all orders for the book to this office. Price, $1.00, postpaid. The usual discount to dealers in lots of 10 or more.

CORRESPONDENCE.

BROOD-CHAMBERS.

Size of the Brood-Chamber—or Large vs. Small Hives.

Written for the American Bee Journal

BY CHAS. DADANT.

I desire to review the criticism written by Mr. Hutchinson, in the April number of the *Bee-Keepers' Review*, on Chapter IV of the "Langstroth Revised."

I write this article for the AMERICAN BEE JOURNAL instead of sending it to Mr. Hutchinson, because he refused to publish an answer that I sent him about one year ago. As my present criticism will bear on the same question—"the size of the brood-chamber"—I do not wish to expose myself to the same (to me) unusual mortification.

According to my notions, the publisher of a periodical devoted to improvements is bound to give, with the largest possible impartiality, both sides of every question. When he favors the writers whose views are identical with his own, by refusing or shortening the articles opposed to his ideas, or when he takes only a few words from a paragraph, to condemn what his opponent says, he is deficient in impartiality, which, to my mind, is the first quality indispensable to a reliable editor.

In his review of this chapter of our book, Mr. Hutchinson, after writing that, "through the chapter runs a vein of opposition to small hives," has omitted to quote several points given in our plea in favor of large ones—in fact he discarded every one of them!

For instance, he quotes thus from our book: "The harvest is in proportion to the number of bees in the hive;" and he starts from this member or phrase, to assert that it is of no matter whether the same number of bees is in one or in more hives. He does not copy one word on the causes of our preference, as given in the same paragraph, which reads thus:

"309. As the harvest of honey is always in proportion to the number of bees in the hive, and as a large colony requires no more labor from the apiarist than a small one, the hive should afford the queen sufficient space to deposit all the eggs which she is able to lay during 21 days, the average time for an egg to be transformed into a worker. Besides, it should contain a certain amount of food, honey and pollen."

The part of the paragraph omitted implies that if we have 100,000 bees, on the average, in one of our large hives, or one million in ten, we will get as much honey, with far less work than if the same number of bees is divided into twenty small colonies. As such theorem cannot be disputed, Mr. Hutchinson has deemed prudent not to mention it.

A little further on he writes that, "a large hive is more expensive than a small one." Nobody will deny it. But, if our large hive contains twice as many bees as his small one, our outlay is smaller, since our hive costs less than two small ones; even without putting in account the cost of queens, for he affirms "gravely" that they cost practically nothing to the bee-keeper; and without reckoning the extra number of empty hives required to receive the more numerous swarms that his small hives will not fail to give.

He does not contest that bees in large hives swarm less than in small ones; but he adds that they will swarm enough to need an attendant. How does he know that such is the fact? Did he ever try our system and our capacious brood-chamber? No! Never! For more than 15 years we have dispensed with watching the bees of our home apiary, numbering from 80 to 100 colonies. As the yearly number of natural swarms does not exceed two or three, the expense of such watching would be far above the profit.

He continues: "If the hives are too large, some of the queens will fail to fill all the combs with brood, leaving from $1.00 to $2.00 worth of honey in the outside combs as dead capital." He passes directly over our anticipated answer to this objection, in the following paragraph, 310, in which he did not fail to read, "This space must allow of contraction, according to the needs of the colony, by what is called 'movable division-boards.'" Besides, I could add that while we can reduce the capacity of our large hive, he cannot increase the size of his small one.

Mr. Hutchinson seems to be opposed to a great prolificness in queens, for he avoided to mention that, according to our idea, one of the qualities of large brood-chambers is to enable the bee-keeper to discern which of his queens are the most prolific, to be selected as breeders, to improve his bees; while such selection is impossible with small hives.

He adds that "he is surprised to see us assert that the honey-board has been discarded of late years." What we wrote is far from being so peremptory, for we said this:

"352. The oil-cloth, or enameled cloth, first applied to hive purposes by R. Bickford, is used over the brood-frames in the spring. It fits closely, concentrates the heat, and can be removed without jar or effort. When the surplus arrangement, or upper story, is put on, this cloth is removed and placed at the top. All apiarists, or nearly all, who have tried the oil-cloth and honey-board simultaneously, have discarded the latter forever, except in some cases of comb-honey production, when a skeleton honey-board is used between stories."

At last he writes: "In closing the chapter on hives, beginners are cautioned to be very careful in buying patent hives. Why, we ask, any more caution when investing in a patent hive, than in one unpatented?" I wonder why Mr. Hutchinson asks for an answer to this question. He can read it in the same paragraph, of which he took, as before, just what he intended to condemn, avoiding to quote our motives, for we wrote as follows:

"358. More than 800 patents on bee-hives and implements have been issued in the United States since January, 1873. Not ten of these have proved to be of any use to bee-keepers. The mention of this fact will suffice to show the small value of these 790 patents, and the loss incurred by those who have bought them before they were able to judge of their merits."

I may add that the buyer of a patent has to pay a royalty for the right of use, and that hundreds of beginners were victimized by patent venders, in paying for worthless implements which sometimes proved to be even real nuisances.

To sum up the criticism of Mr. Hutchinson: In perusing it, nobody could form a correct idea of our views, since it does not contain a word on the causes of our preference for large hives; although we wrote that it is based on a successful practice of more than twenty years, with several hundred colonies in different sized hives, used in producing comb and extracted honey; and although we quote reports from several noted bee-keepers of Europe, who praise the large hives, and have discarded their small ones, after serious comparative experiments.

Our friends, Newman and Root, can say that for years, the hives which are the most recommended by the editors, and the most advertised by the hive manufacturers, in the bee-papers published in the French language, have very large brood-chambers; some of them, such as the Layens, having it even more capacious than ours; while none of our opponents, Mr. Hutchinson himself included, can bring anything forward but their preconceived ideas.

We would be glad to see our book reviewed and criticized, since controversies would help us in redressing

errors ; as we do not consider ourselves infallible, we are ever open to conviction ; but we do not think we are too exacting in asking for honest impartiality in the criticisms.

Hamilton, Ills.

[Editorial comments will be found on page 307.—Ed.]

DRONES.

The Importance of Rearing Good Drones, etc.

Written for the American Bee Journal

BY F. F. GRAVES.

The first honey was brought in today. The season is very early, the trees are leaving out, and the red maple is now fairly in bloom, and is secreting a little honey.

It has been said that the willows produce some honey, but I have never been able to find any in the flower, or see evidence of it in the hive. It affords quantities of good pollen, and the bees have brought in so much the past week, that I have been obliged to take out one or two frames from each hive, many being so full that they are unfit for use, and can only be melted up. This has been my experience for the past ten years ; and if artificial pollen is necessary anywhere, it certainly is not in this locality.

For the past three or four weeks the weather has been very warm—no cold nights, and not a day for a month but what the bees have been out, consequently they are breeding very fast, and it is time that we are thinking, or doing, something about the strain of bees that we wish to breed from. We all know that race will tell, and the importation of queens into our apiaries has made a wonderful improvement in the prolificness, storing-qualities and fighting-propensities of our bees ; and those who do not care to purchase queens to supersede old ones, and to introduce into new swarms, should begin at once to breed from the best they have, as the male has as much or more to do with the disposition or traits of the progeny as the female.

We should commence by selecting the most vigorous and desirable young mothers, and from them rear all the drones for the whole apiary. This can be done by giving such an one a full hive of bees. A good and safe way to do this is to give them, from any hive which can spare them, a few frames of hatching brood ; then in the centre of the hive put one or two empty frames, in or near the middle of which are a few cells of drone-comb (anywhere from 100 to 200), and when the cells are capped over, the frames should be given to such colonies as you do not wish to rear drones from, and the place in the first hive supplied with similar combs, until every hive has a supply of drones.

If at any time drone-eggs are found in a hive, it will be safe to take them away and give drone-brood in any stage, from the selected queen. To rear drones is a natural propensity, but any colony will be satisfied with its quota, let it come from what source it may. If this is practiced, and every hive examined once in two or three weeks, and the heads shaved off from all drone-brood not wanted, and the frames having scattered brood taken out and put into a hive, the entrance of which is protected by a drone-trap, then they can be disposed of as they come out. In this way we can have pure and vigorous males.

We have not heretofore paid enough attention to the most important part of breeding. Many of our apiarists are also poultry fanciers, who have gained a reputation as successful breeders ; and I think that they all are more particular about the points of the male bird than they are of the mother. Why should we not be as particular about the character of the drone, as of the queen ? It is of much greater importance, for the queen is reared under the swarming impulse ; the egg is laid by a mother that is able to fill the hive with brood, and lead the swarm to seek a new home, while the drone may be the last egg laid by a decrepit old queen who has deposited her fifteen hundred thousand, and now has not enough energy or life to produce a fertilized egg, but is just laying from force of habit.

A queen is a queen only by accident; any one of the two or three thousand eggs that a queen lays in a day, may be made into a queen if circumstances require it ; the difference only is a larger cell, and more stimulating and nutritious food. If that will change a worker into a queen, give her more strength, greater endurance, and also a lease of life, not of weeks, but of years—if all this is done by care and condition, why is not the drone equally affected ?

Many of the drones that fly about the apiary were reared in colonies that were not able to take care of themselves, and were dying faster than the young bees hatched to take their places. In such hives the drone could not receive sufficient warmth in germination, proper care, nor enough of the requisite food to make a vigorous male, and his progeny would certainly suffer and be deficient of the qualities that make the best bees.

Waterville, Me., April 30, 1889.

SPRING.

The Management of Bees in the Spring.

Read at the Erie Co. Farmers' Institute

BY O. L. HERSHISER.

At no season of the year do bees need more careful management than during the first warm days of spring, and until they can gather honey from the fields. Losses are not usually heavy during the winter months, but from the latter part of March until fruit trees bloom, the fatality is sometimes great. It is not a difficult matter to winter bees, but to "spring" them successfully often requires much thoughtful attention to their needs and condition.

The first requisite is plenty of food. If this matter has not been looked to in the preceding autumn, preparatory to wintering, it should be on the first warm day of spring. Springs following years of failure of the honey crop, and especially failure of fall honey, are usually springs of heavy losses from starvation and dwindling. If each colony is provided with from 25 to 35 pounds of stores in the fall, they will in nearly every case have abundance to last until the flowers produce honey again.

A normal colony of bees will consume from 6 to 12 pounds of food from fall till April 1, and from this time till fruit trees bloom, about as much more. If they consume more than this, they are not in a normal condition, and are liable to perish. The less honey a colony consumes during the winter, the better will be its condition in the spring.

Feeding Bees in the Spring.

If bees are out of food, empty combs in the hive should be replaced by combs containing honey. If these are not accessible, syrup made from the best quality of granulated sugar may be fed. In feeding, be careful to allow as little loss of heat from the hive as possible. A strong colony will store several pounds of food a day.

A bee-feeder is desirable in feeding syrup. Some bee-keepers prefer to feed by replacing empty combs in the hive by combs containing sugar syrup. The combs are filled by laying them on a board and pouring the syrup into the cells with a dipper. They should be hung in the natural position and allowed to drip before placing in the hive. Feeding should always be done in the evening to guard against robbing.

If it is desirable to stimulate bees to rapid brood-rearing, a small amount should be fed daily, and the feeding

prolonged till the flowers yield honey. If bees have plenty of capped stores, brood-rearing can be greatly augmented by uncapping a part of the honey and place it back of a division-board. As often as the bees restore the honey, the operation may be repeated, until the bees can gather honey from the flowers.

Cleansing the Hives.

If many bees have died in the hive during the winter, they should be removed; this is easily accomplished if hives have loose bottom-boards. Get an extra bottom-board and exchange it for the bottom-board of the next hive, and so on. As nearly all the dead bees have fallen to the bottom-board, by scraping the latter you have pretty thoroughly cleansed the hive. This operation offers very slight disturbance to the bees, and it is but a moment's work to lift the hive and exchange bottom-boards.

If the hives have tight bottom-boards, or are in packing-cases, a part of the combs containing the fewest bees should be lifted out, and this portion of the hive cleansed; then move the remaining combs and bees to the clean side of the hive, and finish removing the dead bees, after which the combs first removed may be replaced.

If the hives are of the same pattern, and look alike, so that a change of hives will not confuse the bees, they may be cleansed by transferring the first colony into a clean hive, by simply lifting the combs and bees into the latter, and placing it in the position of the first hive; then scrape the hive just emptied, and transfer the next colony into it, and so on.

It is not always necessary to go through the operation of cleaning all the hives. If there are a few dead bees, the better plan is to allow each colony to clean its own hive. In the spring following a mild winter, during which the bees have had frequent flights, the hives will seldom contain many dead bees.

When there is an abundant crop of late fall honey, some colonies will store so much in the brood-chamber as to leave insufficient room for brood-rearing. Colonies left in this condition cannot increase rapidly in numerical strength. If the hive is overburdened with honey, some of the full combs should be exchanged for empty ones. Then by uncapping some of the remaining full combs, the honey will be rapidly transformed into brood. Uncapping the honey seems to create the impression among the bees that there is great demand for labor, and they consequently rear young bees as rapidly as possible to meet this apparent need. Thus these otherwise superfluous stores can be converted into full and strong colonies to gather the white clover and linden harvests when they come.

The matter of reducing the stores to the proper amount, should be looked to in the fall, and all honey, not needed for wintering, extracted. No more than 30 pounds of honey per colony should be left for wintering.

Queenless Colonies.

Very often colonies become queenless during the winter. As a rule it is poor economy to purchase queens early in the spring to re-queen them. If the colony is strong it may pay to re-queen. Queens in April are quite valuable, and usually cost about as much as an ordinary queenless colony is worth. If the queenless colony is strong, the better way would be to unite it with the weakest colony that has a good queen. The queen begins laying from the middle to the last of February, and the entire absence of eggs or larvæ in a colony after the middle of March or first of April is sufficient evidence that they are queenless, or that the queen is worthless.

Queenless colonies are liable to be robbed by other bees during the first warm days of spring. The bees seem to lose courage by the loss of their queen, and submit to the robbers with little resistance. Robbing can be easily detected by the great number of bees flying to and from the hive that is being robbed, and by the fine bits of honey-comb and rubbish about the entrance of the latter.

Robbing—Uniting Colonies.

When it is found that a colony is being robbed, the entrance to the hive should be closed for 10 or 15 minutes, to allow the robbers to secure their load of honey, and then opened to allow them to fly away with it. The robber bees that have collected to enter the hive, may be kept away with smoke, while the robbers that have been confined are leaving. After the robbers are out, the entrance should be closed until evening, and then, if queenless, the bees united with another colony.

In uniting, reduce the number of combs in the colony with which you wish to unite the robbed colony, and remove the remaining combs and bees to one side of the hive, and confine them there with a division-board. Place the robbed bees in the remaining space in the hive on two or three combs containing sufficient honey to last them two or three days. All means of passage between the two divisions of the hive should be closed for two or three days, and during this time the robbed bees should not be allowed to fly.

After this confinement they will go together with little or no fighting, and very few bees will be lost by trying to find their old home. They may be brought together by lifting out the division-board and properly arranging the combs. They can also be united by drumming both colonies for ten minutes, keeping the entrance closed; this frightens them, and they fill themselves with honey, when they lose all disposition to fight. This is probably the better way, if the hives are alike, and the two colonies to be united are side by side. But if unlike, and some distance apart, the former method is the best.

Each colony should be confined in space according to its numerical strength. Remove empty combs and use a division-board to confine the bees to the proper space. They should have no more combs than they can cover in moderate spring weather.

In handling bees at this season of the year, care should be exercised that they do not "ball" and kill the queen. "Balling" the queen is a very singular and annoying peculiarity; the bees seem to blame the queen for any disturbance in the home, and often try to kill her when the hive is opened for manipulation. If you notice a little ball of bees about an inch or less in diameter, tightly clustered, you may be sure the queen is in the centre of it, and in danger of being stung or smothered. Get the bees away from the queen as soon as possible, by smoking or throwing the "ball" into water. When the queen is secured, she should be caged in the colony for 48 hours, when she may be safely liberated.

Bees should be manipulated as little as possible. Sufficient food to last until fruit-trees bloom in the spring should be provided in the fall, so that no manipulation of the hive will be necessary until settled warm weather in the spring.

Bees will generally take care of themselves in the winter, if well prepared in the preceding autumn; but a few hours attention in the spring is well spent time, and may result in saving good colonies from starvation and dwindling, so that a few weeks later they will yield a handsome profit.

Big Tree Corners, N. Y.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

BASSWOOD.

Wholesale Destruction of the Linden or Basswood Trees.

Written for the American Bee Journal

BY D. MILLARD.

The following paragraph was taken from the news items of a late issue of a Michigan newspaper :

A. W. Slayton, of Tecumseh, the basswood lumber king, has now so big a business that he will have to travel 12,000 miles during 1889 to look after it. He has sixty mills, which are cutting basswood in 29 counties, and his freight bills run in the neighborhood of $10,000 a year.

This shows conclusively that it is not the poor season alone that is making such inroads upon our surplus honey crop. Within the last 18 months, over 100 linden trees have been cut within easy reach of my bees. I have kept bees the greater portion of the time for over 40 years, and I have ever observed this, that whenever my bees were in anything like a fair condition, and with a good flow of nectar from the lindens, I never failed to get a good crop of surplus honey.

White clover usually furnishes a surplus, but a good yield from the lindens always insured me a full crop of this most beautiful and best of honey. I fear that unless something can be done to check the wholesale destruction of this most beautiful and useful of trees, that the profits of bee-keeping will become lessened to an extent that will cause many to abandon the pursuit.

Planting for Honey.

Much has been said and written of late, in regard to planting for honey ; but I am thoroughly convinced that it never will pay to plant for honey alone. Buckwheat, which has a value aside from its nectar, pays well in favorable seasons. Mint is extensively raised in this vicinity, and pays well for the oil extracted therefrom. My bees worked on it very busily for some time last fall, but it seems to yield nectar very sparingly, and of a quality and color about identical with that of catnip. The best thing to do, I think, is to

Plant Linden Trees.

Laws have been enacted by many of the Northern States, with a view to the encouragement of tree-planting—not only on private grounds, but along the public thoroughfares, parks, etc.

In this State, owners of real estate are allowed to apply a portion of their highway tax in setting trees by the roadside, but I regret to say that very few embrace this opportunity to thus erect living monuments to their memory, and further add to the beauty of the country and the enjoyment of the coming generations. If they would but do so, and but one-fourth of the trees thus set out and properly cared for were lindens, it would be but a few years ere this country might be truly a land flowing with "milk and *honey*."

If there is any profit in setting out trees for shade, there would certainly be a great profit in growing those that would yield honey as profusely as the lindens. They flourish best on low, rich soil, but will grow on almost any upland. If planted thickly in groves or with other timber, they grow slim, forming excellent timber ; but if isolated, they branch out and become more stocky, and make beautiful shade-trees. The trunks furnish a nice white lumber that is of great value for manufacturing purposes.

The leaves and tender branches are readily eaten by any kind of farm stock, and as a honey-producing tree it has no equal. I have a row of them growing on two sides of my farm, and also several hundred in a nursery, nearly all of which blossomed the past season at a heighth of from 4 to 5 feet, being six years from the seed.

How to Grow Lindens.

To produce them in large quantities, the seed should be gathered in the fall and dried ; then packed in boxes with alternate layers of sand, and burried just below the reach of frost. Plant in shallow drills in early spring, and give a light mulching to retain the moisture; keep the ground mellow and free from weeds, and you will get from 4 to 6 inches of growth the first season.

The following spring they should be transplanted into rows 18 inches apart, and 4 feet between the rows, and kept well cultivated throughout the entire season. The next spring each alternate shoot should be removed and placed 3 feet apart in rows, and 4 feet between the rows, and kept well cultivated during the forepart of the season ; later give a mulching of partially rotted straw to retain the moisture, and keep down the weeds. At the end of the fourth year, the larger ones will do to take up and permanently re-set.

If only a few are wanted they can sometimes be found in the open timber where stock have not been allowed to run, as stock of any kind will keep them grazed down close to the ground. These can be transplanted the same as those grown from the seed.

I have no faith in trees grown from shoots, slips, or cuttings ; they seldom make good trees, and are short-lived at best. Abundant evidence of this fact exists in apple orchards throughout the country. Seedling trees are frequently seen bearing heavy loads of fruit at any age that those grown from root-grafts would have been long consigned to the brush pile. The re-setting from time to time causes them to grow more stocky, also more thickly rooted and hardy, enabling them to better withstand the change of final setting. The tops should be cut back and evened up to keep them in good shape, and assist in making them more stocky.

How to Set Out Lindens.

This can be done at any time after they have shed their leaves in the fall, but early spring is much to be preferred. Prepare the ground by plowing and cultivating it the season previous. Never set them out in hard ground or sod, and leave them to take care of themselves. They should be set in rows from 2 to 3 rods distant from each other, and cultivated for at least two seasons, after which the ground may be allowed to grass over.

Start Lindens by the Roadside.

First, it is presumed that there is no risk of damage from stock, as they should never be allowed to run at large in any civilized community. Next select a place where the adjoining field is to be used to grow corn the next season. Remove the old fence, plow and fit the ground as for a crop ; the following spring set out the trees 7 feet from the road line, inside the highway. Plant corn alongside, and cultivate all together for the season.

The next season plant some root crop on either side of the row of trees, while the adjoining ground may be sown to oats or wheat. The third season, make the ground by the trees smooth by harrowing, and seed with Alsike clover, with about one-eighth part Kentucky blue-grass, or common June grass. This, in time, will form a sod after the Alsike runs out.

Next build a good iron fence on the road line, and you have made an improvement that will add greatly to the value of your farm, an everlasting beauty to the highway, and a source of profit through employment for your bees.

Mendon, Mich.

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Brantford, Ont., Canada.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

May 21.—Northern Illinois, at Pecatonica, Ill.
D. A. Fuller, Sec., Cherry Valley, Ills.

Dec. 4, 6.—International, at Brantford, Ont., Canada.
K. F. Holtermann, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

Rolling in the Honey and Pollen.—E. E. Ewing, Rising Sun, Md., on May 6, 1889, says:

I have had two Carniolan swarms—one on May 4, and one on May 5. They were ready to swarm a week before they did, having capped queen-cells several days ago, and young queens ready to come out; but the weather was cold and windy. To-day it is fine, and the bees are rolling in honey and pollen. Apple-trees are in full bloom. The hybrids are only getting started to work fairly.

Early White Clover Bloom.—W. J. Cullinan, Quincy, Ills., on May 2, 1889, writes:

Fruit-trees have been blooming in this locality for about two weeks, but owing to the dry, cool weather prevailing, bees have not derived the benefit that they should therefrom. White clover began blooming here on April 28, the earliest date at which I ever heard of its blooming in this latitude. Now for warm, showery weather, and we still may be able to send in a "bright side" report a couple of months hence, as a sort of diversion from the gloomy ones of the last two years. Bees, where properly prepared, have wintered well.

Colonies in Good Condition.—Jos. L. Flint, Marion, Iowa, on April 23, 1889, writes:

My 5 colonies of bees came out of the cellar on March 25, all strong and in good condition, with plenty of stores and some sealed brood. They have been carrying pollen every warm day since then, and some days they carried it so fast that they dropped on the alighting-board by the half dozen, so that they could not be counted. We have had 1½ inches of rainfall, so that white clover is "booming," of which there is an abundance. The fruit-bnds do not seem to be hurt by the winter frosts.

Working on Fruit-Bloom.—N. Staininger, Tipton, Iowa, on May 6, 1889, writes:

I have had no loss for three years in wintering. My bees came out in splendid condition this spring. I put them out about March 20. A few colonies were put in on Nov. 5, and taken out in April, being in 157 days; they lost 13 pounds each in weight, and came out in fine condition, there being not a spoonful of dead bees among them. I never saw bees so strong at this time of the year. To-day they were lying out like they do in the summer. They are doing nicely on fruit-bloom. The prospects are very good for a grand honey-season. I had plenty of drones flying in April, and I expect some swarms soon.

Good Crop Expected.—E. M. Showers, Pine Bluff, Wis., on April 22, 1889, says:

Never have my bees come through the winter better than the past winter. I had 22 colonies in the fall, and they are all right this spring. I wintered 14 colonies in the cellar, and 8 outside, in chaff hives, and the latter wintered the best. There are not many bees in this place. White clover does not look very promising, but there is a great deal of Alsike in this neighborhood, so I expect a good crop of honey this year.

Bees Doing Remarkably Well.—A. S. Crotzer, Lena, Ills., on May 7, 1889, says:

One of my neighbors had a fine swarm of bees yesterday. How is that for Northern Illinois? I have never seen bees do so well at this time of the year as they are doing now.

[That is good enough. Yes, every indication now points to the best honey-season for many years past.—ED.]

The New Bee-Veil.—Mrs. L. Harrison, Peoria, Ills., writes thus concerning the "New Bee-Veil:"

"What is that, Mrs. Harrison, that you have just received by mail—that square box?" asked a lady visitor who was contemplating bee-culture. "A bee-veil," I replied; and she watched me button the springs on the neck-band, and adjust the veil. When it was completed, I put it over her head—"O, my," she said, "I like this so much better than that wire hat you put on me in the honey-house; it is so light and airy." How crestfallen I was, to hear my wire gauze hat being cast in the "shade." It has so long been my joy and pride, and the more fun that was made of it, the more dearly I loved it; but now Thomas G. Newman & Son have eclipsed it entirely. "Light and airy" it certainly is, and a cool head-cap can be worn within it, when the mercury plays around the hundred in the shade. My objection to veils has been, that I could not protect my neck and chin, so but that bees could sting through; but these steel bows keep the veil so far away, that bees, mosquitoes and gnats are outwitted.

Only One Colony Lost.—C. H. Stordock, Durand, Ills., on April 17, 1889, says:

I finished carrying out my bees yesterday; and of the 102 colonies put into winter quarters, I took out 101 in good condition, though I may find a few queenless ones.

New Honey, etc.—John Boerstler, Vashon, Wash. Ter., on April 29, 1889, says:

I think that bees will do well here this year. I have had 3 swarms from one colony already, one on April 19, one on April 22, and one on April 26; also 2 pounds of new honey from the same colony.

Dry Weather, etc.—Wm. B. Ray, Alaska, Wis., on May 6, 1889, says:

My bees have wintered well, although the month of April was cold and windy, and the first four days of May was cold; but the bees are just booming now, although it is very dry. We have had very little rain within two months, and no snow to speak of. The last season was not as good for honey as the season before, and if we do not get rain soon, our prospects for this season will not be very good.

Evolution.—Dr. C. C. Miller writes thus concerning the discussion of this subject:

Mr. Editor, with your permission, I will allow Mr. Latham's article on page 282 to end the controversy between us. If I ever happen around at Cumberland, Me., I may ask him to explain some things to me; but I do not believe it is best to take any more room in the AMERICAN BEE JOURNAL. All the same, I hope he will rear the best kind of queens.

Early Swarming—Storing the Honey.—J. M. Young, Plattsmouth, Nebr, on May 3, 1889, writes:

The past winter has been so mild in Nebraska that bees have come through safely, and colonies are very strong in bees. I had the first natural swarm to-day. Who can report earlier swarming than this,in this latitude? My bees since my removal have been doing finely, and are storing considerable honey—sufficient to keep brood-rearing under good headway, and the hives are now full of brood. There are several large orchards near, from which the bees are getting their honey. The fruit bloom is good.

Good Prospects for 1889.—Frank A. Eaton, Bluffton, O., on May 4, 1889, says:

Bees are doing finely here, and I can report my first swarm—a fine prime Italian—this morning. Plenty of drones are flying. Prospects are good for a fine crop of honey.

Foggy Weather, etc.—Mr. Levi Reichard, Ellison Bay, Wis., on May 1, 1889, says:

I lost 3 colonies the past winter, and saved 4. We had a very poor season in 1888, and now there is so much foggy weather that the bees cannot fly much, but when they can fly, they are very busy on May flowers, willow and poplar, which abound here. The trees are not yet in leaf, but the buds are just ready to burst open.

Old Colonies of Bees, etc.—J. S. Barb, Bristolville, O., on May 3, 1889, writes:

Bees have not wintered the best throughout this vicinity—lack of honey being the main cause, and so much warm weather during the forepart of the winter, another cause, as the bees consumed a good deal more honey than they otherwise would. The last was a very poor honey season here, as it was too wet, and the two seasons before that were too dry. The prospect for a good honey crop the coming season is very good, as there is an abundance of white clover, and considerable Alsike clover raised; also, there is much basswood here, which will help the bees a little.

Some three or four years ago I wrote about an old colony of bees that I have in a very large box-hive, which I called the "Old Pioneer." Well, this colony is still alive, and in good condition. It was put into this hive on June 20, 1870, and has stood all the hard winters that we have had since then. It is from a stock of bees that was brought on this place by my father in 1836. It has stood close to the wood-pile where we haul, cut, and split wood every winter. I have an old log gum that was brought to this farm with a swarm of bees in it, when my grandfather, Gabriel Barb, moved here, in 1821. My uncle, Mr. Sager, has a few colonies of bees that are of a stock of bees that were brought on the farm where he now lives, by his father, over 80 years ago.

I have a lot of frames of comb in good condition; would it be a good plan to hive swarms on them? If so, how many should I use for each swarm? How soon should I put sections on after hiving the swarm?

[You can use the old combs if they are in good condition for swarms—but we prefer to use comb foundation, and think nothing would be gained by using the old combs. Melt them up for the wax.—Ed.]

Bees Wintered Poorly.—B. W. Peck, Richmond Centre, O., on May 4, 1889, writes:

I commenced the spring of 1888 with 45 colonies, increased them to 55, and took about 1,000 pounds of honey in one-pound sections. I have usually been successful in wintering bees, but on account of long confinement (from early in November until March 4) and black, inferior stores, I have lost 16 colonies out of the 55, leaving 39, and most of them are now in good condition. I expect a good honey season, and hope to make up my losses; I will try and do better next winter. Bees in this vicinity have wintered poorly; but 5 or 6 miles south of this place, bees wintered well.

Bees Doing Well in Texas.—A. W. Lamkin, Cotulla, Tex., on May 7, 1889, writes:

Bees here are doing well for the chance they have. I notice that a great many bee-keepers are trying the improved hive here; heretofore we have generally used dry-goods boxes, or gums cut from hollow-trees; or more frequently, just cut a bee-tree, get what honey that may be stored therein, and leave the bees to shift for themselves. This is a very thinly settled country, and few persons are trying to improve their bees. Those that have given their bees any attention, seem to do well with them. On April 27, I extracted from two hives (the property of Mr. D. M. Levels). I only extracted the top story of each (18 frames), and got 100 pounds of nice white honey. I have had quite a nice time this spring transferring about 30 colonies from dry-goods boxes—some of them had been in the boxes for three and four years; in some the comb had fallen down, and had lain in the box for a year or more. The outlook for honey here this year is good; grass and crops of all kinds look well, and all kinds of stock are fat.

Bees Doing Finely.—Dr. J. M. Hicks, Indianapolis, Ind., on May 4, 1889, writes:

Bees are doing finely in my new location. The State apiary has had two new swarms. The bees all wintered well, having lost none except by two-legged thieves, who relieved me of two of my best colonies during the winter, at my old home in Battle Ground, Ind. Honey is in good demand in my home trade here.

An Early-Reared Queen.—S. D. Haskin, Waterville, Minn., on May 7, 1889, says:

Tally one for Minnesota; for I have reared a queen this spring, which, on the first day of this month, was laying worker-eggs, all in good order, and bountifully. I think that the fertilization must have been by a drone reared in a worker-cell, for I had noticed a very few such (perhaps a half dozen) in one hive, and no other drones anywhere.

Carex or Sedge Grass.—J. M. Doudna, Alexandria, Minn., on April 27, 1889, writes:

Will you please name the sample of native grass that I send? It grows in the timber-lands, and yields a great amount of pollen; and blooms just after the willows and soft maples. Bees are in fine condition. I never had them winter better; most of them have from 5 to 8 frames of brood. They got the first pollen on April 6, from hazel. Last year the willows did not bloom until May 10.

The above was referred to Clarence M. Weed, of the Ohio Agricultural Experiment Station, who replies thus:

The "native grass" is a sedge of the genus *Carex*, and has been identified by Prof. L. H. Bailey, of Cornell University (our best authority on this group), as *Carex Pennsylvanica*.

AMERICAN BEE JOURNAL
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ALFRED H. NEWMAN,
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1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the lettiug down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amouut can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of of any other papers. Send for such to the publishers of the papers you want.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

Triple Lense Magnifiers have been so often called for that we have concluded to keep them in stock for our subscribers to inspect bees, insects, etc. See page 212.

Price, by mail, 80 cts.; or the BEE JOURNAL one year, and the Magnifier, for $1.50.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

Honey and Beeswax Market.

DETROIT.

HONEY.—Best white 1-lbs., 14@15c. Market is dull and lower, but not overstocked. Demand slow.
BEESWAX.—22@23c.
Apr. 30. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—We quote: White 1-lbs. 15@18c.; dark, 10@12c.; California white 2-lbs., 11@12c.; amber, 10@11c. Extracted, white, 7@8c.; dark, 5@6c. Our market is in good condition for the new crop.
BEESWAX.—20c.
May 11. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Extracted, in barrels, 6½@6¾. Excellent demand for clear, bright in barrels.
BEESWAX.—22c. for prime.
May 4. D. G. TUTT & CO., Commercial St.

CHICAGO.

HONEY.—Our trade is light; no large lots on hand and what there is consists chiefly of dark comb, and not salable in quantities. Choice white comb, 1-lb. sections, 16@17c.; dark grades from 10@12c. Very little demand for extracted, but prices remain at 7@9c., according to quality and package.
BEESWAX.—22c. R. A. BURNETT,
Mar. 25. 161 South Water St.

DENVER.

HONEY.—White, in 1-lb. sections, 18@18c. Extracted, 7@10c.
BEESWAX.—18@20c.
Mar. 26. J. M. CLARK & CO., 1409 Fifteenth St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 16@17c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c. If damaged and leaky, 10@12½c. Extracted, white, in barrels, 8@8½c.; ½-barrels, 8½@9c.; amber in same, 7@7½c.; in pails and tin, white, 9@9½c.; in barrels and ½-barrels, dark, 6@6½c. The demand is fair.
BEESWAX.—20@22c.
Mar. 27. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—Market is bare of comb, except some small lots of buckwheat which is selling at from 10@12c. No buckwheat extracted. Cuba and San Domingo extracted, 67@70c. per gallon.
BEESWAX.—24c.
HILDRETH BROS. & SEGELKEN,
Mar. 25. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 18@20c.; best 2-lbs., 17@18c. Extracted, 8@9c.
Sales have been checked a little on account of maple sugar and syrup being so plentiful. Sales of honey are very slow.
Apr. 23. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNAT

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@15c. Demand is slow, and prices low.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Mar. 21. C. F. MUTH & SON, Freeman & Central Av.

Advertisements.

ITALIAN Queens, Tested, $1.25.; Untested, 75c., 3 for $2. Circulsr of Bee-Supplies, &c. *free.* JNO. NEBEL & SON, High Hill, Mo.
20Atf
Mention the American Bee Journal.

ITALIAN Bees and Queens in 10-frame hives—size of frames, 9⅛x17⅝, 11¼x11¼, and 11¼x14¼, with wired comb foundation—for $5 per colony. Tested and Untested Queens Bee-Keepers' Supplies, Nuclei at a low price.
Address. OTTO KLEINOW,
150 Military Ave., DETROIT, MICH.
Mention the American Bee Journal.

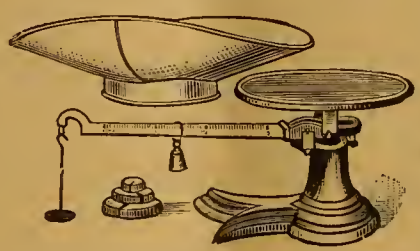
B. J. MILLER & CO.,
NAPPANEE, IND.,
BEE-HIVES, ITALIAN QUEENS
3,000 4¼x4¼ One-Piece Sections at $3.50 per 1,000: orders over, write for special prices. Brood-Frames, Metal Corners, Smokers, Honey-Extractors and Fruit-Boxes. Send for Price-List, free. Only sent on application. 20Atf
Mention the American Bee Journal.

Useful Scales

The Union or Family Scale.

This Scale has steel bearings, and it weighs from ½-ounce to 240 pounds. Price, with a Single Brass Beam, as shown in the illustration, $3.00. With Double Beam for taking the tare, $3.50.

The Little Detective Scale.



This little Scale is made with steel bearings, and a brass Beam, and will weigh accurately ¼-ounce to 25 pounds. It supplies the great demand for a Housekeeper's Scale. Prices:

Single beam,	no scoop	$2.00.
" "	tin "	2.50.
Double "	no scoop	3.00.
" "	tin "	3.50.

☞ All orders filled promptly.

THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL.

WANTED.—By two young men of good habits, aged 28 and 18, a situation with some bee-keeper where they will have a chance to learn the business. The elder has had some experience, both are mechanics by trade, and willing to go anywhere and make themselves generally useful. Only moderate wages expected. Address,
I. G. CHATFIELD,
19A2t 44 Cook St., WATERBURY, CONN.

Hybrid Bees in Langstroth Hives

FOR $4.50 per colony. Each colony will contain a good young Queen, 10 straight worker combs, very strong in Bees, and at least 7 frames of brood. 3 frames of brood and 1 lb. of Bees, $2.00. Address,
H. L. PANGBORN, Magnoketa, Iowa.
20A2t

GIVEN AWAY,
First-Class One-Piece Sections!

THE above is not true, and is only done to attract attention; but it is true that I am selling the Whitest and Best No. 1 One-Piece Sections made—at $3.00 per M; No. 2, $2.00 per M.
Address, J. M. KINZIE,
20Atf ROCHESTER, Oakland Co., MICH.

100 COLONIES

OF ITALIAN and HYBRID BEES for Sale in fine condition. Also JAPANESE BUCKWHEAT. Write for prices—away down. A. J. & E. HATFIELD,
20Atf SOUTH BEND, IND.

PURE
ITALIAN QUEENS

FROM the Apiaries of J. P. CALDWELL, of San Marcos, Texas. Reared under the most favorable circumstances. Will be sent by mail, postpaid, at the following prices:

	Mar.	Apr.	May Jun to Oct
Select Tested	$4.00	$3.75	$3.25 $2.75.
Tested	2.00	2.75	1.75 1.50.
Untested		1.25	1.00 1.00.
6 Untested		5.50	5.00 4.50.
12 Untested		9.50	9.00 8.50.

☞ Contracts taken with Dealers to furnish Queens by the month at special rates.
Address, J. P. CALDWELL,
10A26t SAN MARCOS, Hays Co., TEX.
Mention the American Bee Journal.

ALLEY'S QUEENS. Circulars & Price-List ready. Henry Alley, Wenham, Mass.

GREAT REDUCTION IN PRICE OF
JAPANESE BUCKWHEAT!

ONE-HALF bushel, 75c.; 1 bushel, $1.35; 2 bushels, in new grain-bag, $2.50. Shipments prompt. Satisfaction guaranteed. I have sold nearly 100 bushels this spring, and have about the same amount on hand, which I will sell at the above low prices. Strictly first-class Seed. Make Money Orders payable at Berlin, Wis. M. P. CADY,
19A4t POY SIPPI, Wausbara Co., WIS.
Mention the American Bee Journal.

IF you want Italian Queens as good as the best in the U. S., reared from the eggs in full colonies—Tested $2, Untested $1, 6 for $5, Mismated Queens 50c.—send by registered letter, or Money Order on New Market, Ala.
B. B. TONEY, PADGETT, Jackson Co., Ala.
19A4t

The Hive and Honey-Bee, and Dadant's Foundation. See advertisement in another column.

BRIGHT ITALIAN Bees and Queens, Bee-Hives, Sections, Foundation, etc.
12A1y H. H. RUETER, Baxter Springs, Kan.

British Bee Journal

AND BEE-KEEPERS' ADVISER,
IS published every week, at 10s. 10d. per annum. It contains the very best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley Herts, England.

WANTED—You to send for my illustrated price-list of Apiarian Supplies for 1889; also five cents for my pamphlet, "How I Produce Comb Honey."
GEO. E. HILTON,
16A8t FREMONT, MICH.
Mention the American Bee Journal.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free
J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.
Mention the American Bee Journal.

TESTED Italian Queens, $1.25 each. Untested—ready to ship about June 1st—75 cts. each, or 3 for $2.; 3-frame Nucleus with Tested Queen, $3.25 each—BEES 90 cts. per lb. I. R. GOOD,
19Atf Nappance, Elkhart Co., Ind.
Mention the American Bee Journal.

TANSY PILLS!
Safe, Certain and Effectual. Particulars 4c. WILCOX SPECIFIC CO., Phila., Pa.
17A1y
Mention the American Bee Journal.

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD
PUBLISHED BY
THOS. G. NEWMAN & SON,
CHICAGO, ILL.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. May 25, 1889. No. 21.

EDITORIAL BUZZINGS.

We have Received the annual report of the Experiment Station of the College of Agriculture, of the University of Minnesota, at St. Anthony Park, Ramsey Co., Minn. This is the institution now presided over by Prof. N. W. McLain, who is the professor in charge, and the director of the Station.

A Correspondent in Texas says: "I have 10 colonies of Cyprian bees crossed with hybrids, which make very vicious bees; at times they are almost unmanageable, but they are excellent honey-gatherers. What is the best plan of subduing them? I dislike to use tobacco smoke." We reply: To give them an Italian queen is the best advice we *can* give. We have no use for vicious hybrids, and there can be no excuse for crossing Cyprians with hybrids. It is a very dangerous proceeding, and is damaging to the pursuit. To subdue them is almost an impossibility.

Dragging Out the Brood.—A correspondent writes us that his bees are dragging out brood, and asks what to do to stop it. They must be short of stores. G. M. Doolittle, in the *Rural Home*, writes thus about the necessity of stores in the hives:

To secure the best results in brood-rearing, it should be known that each colony has honey enough to last them at least two weeks ahead, never letting them get nearer out than this. When a prospect of starvation in the near future confronts a colony, they always curtail brood-rearing so as to save their stores if possible till the flowers yield honey. If there is no danger of their supply of stores giving out, they carry on brood-rearing as fast as the weather will permit.

Secrets of Bee-Keeping.—On page 259 we noticed a new claimant for public favor, who proposed to send the "Secrets of Bee-Keeping" for a "nickel and a dime" sent to his address within two miles of the office of the AMERICAN BEE JOURNAL.

Since then the bee-periodicals have been after him in these words. The first is from *Gleanings*:

A "FISH STORY" AND A BAIT FOR NOVICES.—For several days back, correspondents have been forwarding on to us circulars from F. Andrews, Chicago. The circular bears the stamp of a "fish story." It advertises a new hive that will prevent swarming, that will set every idle bee to work, and that will store *twice* as much honey as any other hive made. Mr. A. further claims that it will cost nothing to keep bees, as they feed themselves; that a single colony will net from $25 00 to $60.00 per season. It closes up by offering to sell a book, entitled, "Secrets of Bee-Keeping," for 15 cents.

Bro. Newman, of the AMERICAN BEE JOURNAL, of course, was prompt to find out whether there was any such individual. In his last issue he says they have made four trips to the address of Mr. Andrews, but that he was "out" each time. A woman in an adjoining room said he was there only a few minutes each day, and that he expected to make a trip to California in May. Mr. Newman cracks his editorial whip over Mr. Andrews' shoulders in his following characteristic way. He says:

"It is useless for *us* to caution any one, for *our* readers do not send 'a nickel and a dime' for any 'secrets' of bee-keeping. They know better. It is the 'novices' he is after. The circulars seem to have been sent to postmasters, and by them distributed into the 'boxes,' to catch the unwary, and many $3.00 and 'nickels and dimes' for Mr. Andrews to go on a 'trip around the world.'"

P. S.—Since the above was in type, we have the following from friend Newman:

FRIEND ROOT:—After some six special trips to Mr. Andrews' advertised place, I have got a copy of his pamphlet, and mail it to you to-day. His hive is a Mitchell, and the extractor a McDougall. In fact, the whole pamphlet is mainly a copy of McGougall's, published in Indianapolis twelve years ago. He told the person I sent that he had no hives on hand—had sold none this year, and said it would take 10 days to get one made. He is doing nothing.
THOMAS G. NEWMAN.

The book kindly forwarded us, as above, is a pretty fair bee-book for only 15 cents, only it does not fill the bill at all, according to the circular. The principal illustration is one used years ago by N. C. Mitchell. Mr. Andrews, however, has dug out the "N. C. Mitchell," giving the hive a botched appearance. From the back cover we learn that Mr. A. sells patent medicines, etc. The engraving of the extractor is one made for us years ago by Stillman & Co., of Cincinnati, O. The word "Novice" is got rid of by some means.

The next is from the *Bee Hive*, by E. H. Cook, of Andover, Conn.:

Some three weeks ago our postmaster handed us a leaflet circular on bees, a number of which he was distributing to people as they came for their mail. It proved to be interesting reading; here is a sample:

It costs from $2.00 to $4.00 a stand to start with and you can realize from $25 to $60 per stand, etc.

On the back a "New Improved Hive," and a book, "Secrets of Bee-Keeping," were advertised. The address was W. Madison St., Chicago. We wrote to Mr. Newman, editor of the AMERICAN BEE JOURNAL, for light on this "secret" kind of bee-keeping, and the following is his reply:

We have made some six different trips to find Mr. Andrews, and only this morning (April 27) have we got the first copy of the "Secrets of Bee-Keeping," which he advertises. It is a small pamphlet printed in the cheapest and roughest style, a re-hash of the McDougall pamphlet, published in Indianapolis in 1877. The hive is the N. C. Mitchell, and the extractor the McDougall. It is behind the times, and in character it is the "Oklahoma boomer." He could not agree to fill an order for a hive in less than ten days—had made none this season, etc. Is going to California in about ten days.

Mr. Newman is ever working for the best interests of bee-keepers, of which this is only one instance of the innumerable "skinners" that he has exposed. Only novices and people unacquainted with bee-keeping would be caught by the circular.

A Very Bright Idea.—The *Canadian Honey Producer* gets off the following "joke" in its May issue, under the heading of "A Way to Get Apis Dorsata at Last:"

Some years ago Mr. D. A. Jones and others made great efforts to secure Apis Dorsata, but owing to the difficulty of transporting bees when secured, they have failed to get them to this country alive. We would suggest that the next enterprising individual take a package of Dr. Mason's egg-preservative with him, and secure not live ones, but drone and worker eggs, preserve them and ship them to America, where they might be put into strong colonies, the drone eggs first, and the fertilized egg later, and Apis Dorsata shall be ours. It is needless to add that we claim a moral right to the idea, but will sell it to any responsible party for a half interest.

The Doctor will take that "half interest," Mr. Holtermann, and "don't you forget it." He is always ready to *appropriate* such nice things. But how did you come to get such a brilliant idea? It entitles you to a long chalk-mark!

Hiving Swarms.—Ray Murray, of Ada, O., gives the following in *Gleanings*, as his method of hiving swarms:

When a swarm is about settled on a pear-tree, evergreen, or grapevine, I pick up my swarming-box, throw back the duck top, slip it under the swarm, and then give the limb a few small jerks. I then have about all in the cage. Next I throw back the duck top, and wait a little while, till the outside bees can hear, see and scent their little comrades in their wire cage. They will soon settle on the wires, and peep in, I suppose, to see "mother." I then pick up the swarm and pour it in front of the hive prepared for them.

In the Excitement of swarming, the bees fill themselves with honey before leaving the hive. An exchange gives these reasons for their doing it:

This is one of the wise provisions of nature. It gives them a start in their new home, and sustains them until they can get "organized" and at work once more. But this is not all, the main secret of why bees can be so easily manipulated when swarming lays right here. This is why we can shake them into baskets, and pour them out in front of the hive without their raising a disturbance in our "har!" In other words, a "full stomach" has the same effect on a bee as it does on a man—it makes 'em good natured!

Subscribers who do not receive this paper promptly, will please notify us at once.

GLEANS OF NEWS.

The Bee and Honey Show at Buffalo, N. Y., promises to be one of great interest. The Buffalo *Courier* makes these comments on tt:

Not least among the many new and attractive features of the Buffalo International Fair will be the bee and honey department, under the superintendence of O. L. Hershiser, who is a practical and scientific apiarist. This industry has hitherto received a very small and unequal share of patronage from the majority of large fairs, notwithstanding the efforts of bee-men to secure a more hearty recognition. Premiums have usually been so insignificant as to be no inducement to those who would with reasonable inducement make a representative display, and the products of the apiary have usually been forced into some out-of-the-way place, in space not desirable for other purposes.

The managers of the Buffalo International Fair have taken a long step in advance, and placed the "bee and honey" department on an equal footing with other industries. They have offered a handsome sum of money in premiums, and the department will be advantageously located in the main building.

The following are the "Rules" and "Premiums" of the Honey Show:

Exhibitors will not be allowed to remove honey from their exhibit during the Fair, but may sell from a reserved supply, for which no charge will be made.

Exhibitors who sell honey, must enclose it securely in paper or cartons.

Honey exhibited or sold must be this season's crop, and all honey must be the produce of the exhibitor.

Exhibitors competing for a single premium cannot be included in a display.

Colonies of bees must be exhibited so as to be readily seen on at least two sides.

A breach of these rules will forfeit all premiums that may be awarded, and the right to exhibit the following year.

Display of comb honey, largest and most attractive	$30	$15	$8
Display of extracted honey, largest and most attractive	30	15	8
Sample of comb honey, not less than 25 pounds in shape for retailing	10	5	3
Sample of extracted honey not less than 25 pounds, in best shape for retailing	10	5	3
Display of comb honey, by a lady	15	5	
Display of extracted honey, by a lady	15	5	
Largest collection of samples of different kinds of honey, from any source	15	8	
Display of beeswax, largest and most attractive	20	10	
Sample of beeswax, not less than 10 lbs., the produce of the exhibitor	6	3	
Honey-vinegar, not less than one gallon, displayed in glass	6	3	
Assortment of honey candies	6	3	
Assortment of pastry made with honey	10	5	
Assortment of fruits preserved in honey	6	3	
Colony of Italian bees in observatory hive	10	5	
Colony of Syrian bees in observatory hive	10	5	
Colony of Cyprian bees in observatory hive	10	5	
Colony of Carniolan bees in observatory hive	10	5	
Best collection of queen-bees, not less than one dozen, in such shape as to be easily seen	20	10	
Collection of honey-producing plants, properly named, pressed and mounted or in bloom	15	8	
Display of comb foundation, both brood and surplus, made on the grounds, quality to be considered	20	10	
Sample foundation for brood-chamber, quality to be considered	10	5	
Sample foundation for surplus, quality to be considered	10	5	
Largest and most complete line of bee-keepers' supplies, exhibited by manufacturer, quality of workmanship to be considered, Society's large Silver Medal.			
Best bee-hive for comb honey, Diploma.			
Best bee-hive for extracted honey, Diploma.			
Best bee-hive for all purposes, Diploma and Medal.			

Competent judges will carefully examine and pass upon any new and meritorious improvement or invention, and make such honorary awards as they deem just.

The superintendent of the bee and honey department, O. L. Hershiser, will furnish a premium list of the fair, and give any further information regarding the apiary department to all bee-keepers who may apply for it.

As Mr. Hershiser has induced the fair managers to make these liberal offers, we hope that the bee-keepers will give a hearty response, so that it can be shown to have been a good venture for the fair, as well as for bee-keepers.

Mr. Hershiser desires to make the following announcement to those who intend to exhibit:

Those who contemplate making exhibits in this department, should send estimates for the space they wish to occupy, at as early a date as possible. Space will be assigned in June. If application is made early, we can have all the space we can use. The bee and honey exhibit will be in the main building, where every visitor may see it.

Buffalo is a very central location for a bee and honey show for the Eastern and Middle States, and we hope that a magnificent exhibit will be made of the products of the apiary.

Such Shows are the best educators of the the people that can be made. We shall have (to all present appearances) the largest crop of honey in many years, and every means should be used to create a demand for its consumption. It must be eaten by tons upon tons—a little by everybody—and still there will be enough left for cooking and manufacturing purposes!

Educate the People to Eat Honey

Recipes for Colds.—Here are some recipes where honey is an ingredient for the cure of coughs and colds. The items were clipped from some paper and sent to us by Dr. A. B. Mason. Other papers are requested to copy them for the general good. Here they are:

In the changing weather of this month a great many are troubled with a hacking cough; a cold, taken in time, can often be checked. We keep aconite solution at our house, which, by putting a few drops in a little water and taken at short intervals during the evening, will break up a cold by morning.

A correspondent writes that a heaping tea-spoonful of honey stirred into a raw egg is a very good corrective for a cough, which should be continued for nine or ten mornings.

Another very good recipe is to put ten cents' worth of balsam of fir gum into a pint of whisky; as the gum dissolves, pour off the liquid and add to two-thirds honey one-third of the liquid. Take a tea-spoonful at a dose. We have used this in cases of very bad coughs. A severe cough should never be trifled with, nor allowed to run on.

Catalogues for 1889 are on our desk from—

M. A. Williams, Berkshire, N. Y.—1 page—One-Piece Sections.

Joseph M. Hambaugh, Spring, Ills.—12 pages—Apiarian Supplies.

A SONG FOR MAY.

BY EBEN E. REXFORD.

A song for May, whose breath is sweet
With blossoms glowing at our feet;
Her voice is heard in laughing rills
That ripple down the sunny hills,
O, happy, happy May.

The robin in the cherry tree
Is blithe as any bird can be;
And bubbling from his silver throat,
His wordless songs of rapture float.
O, happy, happy May.

Above the hills the firmament
Bends down about us like a tent,
And we, O, fairy-footed May,
Are dwellers in your tents, to-day.
O, happy, happy May.

Our hearts are glad with bird and bee
For what we feel and what we see;
O, would that life and love, we say,
Might always keep its happy May,
Its happy, happy May.

—*Vick's Magazine.*

Best Honey Weather.—A correspondent in the *Northeastern Farmer* makes these remarks about the best weather for the secretion of nectar:

It is my opinion that the best honey seasons are when it is comparatively dry weather. Frequent showers are beneficial to the honey-producing flowers. On a very warm day when the air is filled with electricity, but scarcely a cloud overhead, by taking notice you will see the bees bringing in the honey with all possible haste. Being loaded so heavily they drop upon the platform for a little rest before entering the hive.

The hurrying to and from the hive as though there was not one moment to lose, is a pretty sure sign of a shower "making up" in the distant horizon. Flowers secrete more at such a time. But after a shower, when the sun again shines forth, and a gentle breeze has shaken the rain-drops from the flowers, the bees are again ready to start out securing their sweets, but with less appearance of nervousness.

One who is not acquainted with these "little laborers" cannot understand the intelligence they possess. It is regarded as instinct. I am inclined to think it is a fair amount of understanding.

Scientific Queen-Rearing, as practically applied; being a method by which the best of queen-bees are reared in perfect accord with Nature's ways. This is the title of a new book of 176 pages, by G. M. Doolittle, of Borodino, N. Y., which is now ready for delivery.

In this book Mr. Doolittle details the results of his experiments in rearing queen-bees for the past four or five years, and is the first to present his discoveries to the world. It is published in time for every progressive bee-keeper to test the various discoveries which it details, during the present season. Send all orders for the book to this office. Price, $1.00, postpaid. The usual discount to dealers in lots of 10 or more.

Simmins' Non-Swarming System, and the AMERICAN BEE JOURNAL for one year, for $1.25. The subscription to the BEE JOURNAL may begin now.

QUERIES & REPLIES.

Characteristics of Bees Transmitted by the Queen.

Written for the American Bee Journal

Query 632.—1. What is the difference in general characteristics between hybrid bees produced by a cross between an Italian queen and a brown German drone, and those produced by a cross between a brown German queen and an Italian drone? 2. What characteristics do you expect the queen to transmit to the workers, and in what will they resemble the drone?—Illinois.

I will let expert queen-rearers answer this.—C. H. DIBBERN.

1. As they average, very little if any. 2. About equal from each parent.—G. M. DOOLITTLE.

1. If you believe that prepotency is on the male side, you can answer your own question.—A. B. MASON.

1. I cannot say, as I think that I have only had the first-mentioned kind. They were cross, but good workers. 2. Let the "other fellow" answer this.—MRS. L. HARRISON.

1. I have had no experience with the progeny of Italian drones and black queens. 2. I refer you to Prof. Cook. —R. L. TAYLOR.

1. The bees of the first cross, in my experience, are the best honey-gatherers. Their general characteristics are nearly the same.—W. M. BARNUM.

1. There is no difference. What is the difference between a child of a white father and negro mother, and one from a negro father and white mother? 2. No possible rule can be given. Sometimes the male is prepotent; at other times the female.—A. J. COOK.

Friend "Illinois," unless some of the others know more about it than I do, you have come to the wrong place for information.—C. C. MILLER.

1. I give it up. I do not know. 2. A queen whose workers are extra honey-gatherers, is apt to have daughters whose workers are extra honey-gatherers also. The drones transmit color, and (probably) strength of wing, and power to smell.—MAHALA B. CHADDOCK.

1. The progeny of an Italian queen mated with a black drone, have always seemed to be more irascible than those *vice versa*. 2. From the mother, the markings predominate; from the drone, the disposition, if any observations are correct.—J. M. HAMBAUGH.

1. As a rule, the former are vicious, and the latter fairly gentle. 2. Exceptions will occur to any rules that may be laid down in the matter of heredity. But the rule is, that the queens transmit to the worker progeny any peculiarity in the comb-building faculty; that is, the manner of building and capping the combs. They also transmit size, and to the queen progeny, fecundity. The drones transmit the working quality, temper, color, and size to the drone progeny, which does not appear until the second generation. —G. L. TINKER.

"Illinois" please excuse me. I have never studied along this line critically. If the bees produce much honey, and are reasonably docile, I do not inquire who their grand-parents were.—J. M. SHUCK.

1. I presume that there may be as much difference as there is between a mule by a cross between a jenny and a stallion, and one from a jack and a mare. I have heard it maintained that there is a difference, but I do not know. 2. If the queen is pure, she ought to transmit *all* the characteristics possessed by the workers of her race.—EUGENE SECOR.

1. The black drone with an Italian queen makes cross bees; while the Italian drone and black queen are more gentle. That is my experience. 2. You can place but little dependence upon what the bees will be and do, until you get them.—H. D. CUTTING.

1. Crosses between Italian queens and black drones (I do not know any thing about "*brown* German drones") are usually crosser, more pugnacious, and better honey-gatherers than the cross of a black queen and an Italian drone. 2. The most prominent characteristics are transmitted by the queen.—J. P. H. BROWN.

1. Who can tell? There are no characteristics that I know of, by which any cross can be known. 2. Who can answer this? I confess that I cannot, in fact. Crosses are so liable to sport that no positive deductions can be made.—J. E. POND.

1. In appearance, half-pure bees (there are no hybrids) resemble the queen more than the drone. A pure Italian queen that has mated with German or black drones, will produce bees that will nearly all be more or less yellow. A black queen and Italian drone will produce mostly black bees; only a few will have yellow bands. 2. The progeny of a black queen and an Italian drone are more gentle than the opposite cross.—M. MAHIN.

1. I found, many years ago, when handling the fiery Cyprians, that the queen transmits family traits so far as general appearance is concerned with the greatest regularity; while the drone (coward as he is erroneously believed to be) transmits temperament. Thus, the drones of a fiery race of bees, when coupled with queens of a gentle race, give fiery progeny. This answers the second part of the query, also.—G. W. DEMAREE.

It depends upon circumstances and conditions—there is no rule to judge by. Generally the latter cross are much more docile.—THE EDITOR.

CORRESPONDENCE.

BROOD-REARING.

The Proper Temperature Inside of the Brood-Nest.

Written for the American Bee Journal
BY G. M. DOOLITTLE.

As the season for brood-rearing is at hand, something regarding the degrees of heat maintained inside of the cluster of bees which are rearing brood, may not be amiss; especially as I see, by what I read, that but few have a correct idea of what warmth the bees keep the larvæ, eggs, etc., during the time when they are rearing their young.

While Nature has so ordained that a good colony of bees can form a "living hive," as it were, so as to generate heat enough for brood-rearing inside of a crust or wall of living bees, still, in early spring weather, the capacity of a hive to retain warmth, the same coming in close contact with the bees, has much to do with prolific brood-rearing, and the getting of our bees in time for the harvest. The more heat we can retain in the hive, the more honey we can save; for all are aware that the fuel which the bees have to "burn," so as to raise the temperature of the cluster to where they desire it, is honey.

Again, the more fuel (honey) the bees burn, the quicker their life wears away, for it takes an effort even on the part of the bee, to keep the furnace (the bee) filled with fuel as fast as it is consumed. Hence we see the important bearing that a good, warm hive has in advancing our interests in early spring weather.

Why do I say in early spring weather? Because, that at this season of the year, the temperature outside of the hive is very much lower than that which is required by the bees to rear brood. If, as I saw in print not long ago, bees could rear brood with a temperature of only 55° to 60°, then there would not be so much need of a warm hive; for we have many spring days wherein the mercury goes as high, and even higher than that. If those figures were cor-

rect, then our bees could rear brood in April and May, here at the North, to good advantage, as they now do in July and August.

Again, I see that where the temperature inside of the hive reaches from 73° to 84°, the bees ventilate the hive, by setting apart a certain number of bees to fan at the entrance, in order that a higher temperature than 84° shall never be reached, as that is the highest temperature bearable by the brood. If this were true, then what would the bees do when the mercury stood about the "nineties" for days in succession, as we frequently have it, even in this locality? Would it be possible for them, by fanning the air, to give a less degree of heat than that very air contained?

Once more: I notice that some of our most practical bee-keepers say that we should not have the temperature of the lamp-nursery much above 85°; for if we do, the queens which we are trying to hatch in the same, will be killed; for that is about the temperature at which the bees keep their brood and queen-cells, when they have their own way. A very few allow that a temperature of 90° may be maintained, and yet have the queens hatch all right. Having a desire to know of this matter myself, I began to experiment as follows:

I procured a self-registering thermometer, and after placing it near the fire till it showed 125° of heat, the register was set, when it was carefully wrapped in a warmed woolen-cloth, and immediately placed in a medium colony, as nearly the middle of the brood-nest as I could guess at the center. This was on a very cool day, the latter part of May, on the night of which water was frozen so as to form ice nearly as thick as window-glass, I selecting such a time purposely.

The next day, at two o'clock, it had warmed up enough so that the bees were flying, when I took out the thermometer, and found that the coldest point reached in the brood-nest during that cold night was 92°. After this I tried the same experiment several times on both strong and very weak colonies, although at no time did it freeze as hard as at that time; in fact, I do not know that the freezing-point was reached outside the hive during any of the other experiments, yet in no colony that was rearing brood did the mercury register less than 92°; while some of the strongest colonies gave 95° as the lowest temperature inside of their brood-nest.

Being satisfied that 92° was the lowest point consistent with rapid brood-rearing, I next went about finding what was the highest point the bees allowed in their hive, when the mercury was playing about the "nineties." Accordingly, I placed the thermometer in a very strong colony, early one morning, when the day gave promise of being a very warm one, the temperature at this time being 78° in the shade. At two o'clock that day, the mercury in the open air was at 91°, while later on there was scarcely a hive in the yard but what the front was covered with bees "hanging out." At about sun-down, the thermometer was lifted from the hive, when I found that the highest point reached was 98° during that extremely hot day. With several other experiments tried along this line, I was not able to secure quite as high a temperature as that again, although one other time it was within less than one-half of a degree of 98°.

In this way I found that to rear brood successfully, the temperature of the hive must reach a point somewhere between 92° and 98°; and if this was the case, why should I not keep my lamp-nursery between those temperatures, if I desired to hatch queen-cells perfectly.

I am well aware that sealed brood, or nearly mature queen-cells, will bear a lower temperature than will larvæ, but that does not decide but what such would be better off could they have the same temperature which they enjoy in the hive. From the foregoing, I think that it will be apparent to all, that there is great advantage in helping the bees all we can in early spring, to maintain as warm a temperature as possible inside of the hive. This can be done to the best advantage by keeping the hive as tight as possible at the top, and contracting the same to suit the size of the colony occupying it.

Borodino, N. Y.

FOUL BROOD.

An Experience with this Disease —Fastening Foundation.

Written for the American Bee Journal

BY JOHN H. MANCHESTER.

I commenced bee-keeping about nine years ago, with one colony of black bees in a box-hive, which I transferred to a movable-frame hive, and Italianized them. They increased until I had 12 colonies, when I bought 2 colonies for $14.00. They had the foul brood, but not knowing it, I went on and exchanged frames, and gave the disease to the whole apiary.

I then began to cure them, and succeeded. I put them into a box and left them 24 hours, and then hived them on one frame of hatching brood and honey; this was taken from healthy colonies, and the rest of the hive filled with foundation. I extracted the honey and melted up the wax, burnt the frames, and steamed the hives. There have been no signs of foul brood since in my apiary.

I also treated some bees for one of my neighbors in the same way. He boiled the honey, and fed it back to his bees, and they had the foul brood the next year.

I have at present 43 colonies of bees, all in good condition. I prepared them for winter by packing them on the summer stands. My bees are in double-walled hives. Bees in this town have wintered nicely.

Fastening Foundation.

A good deal has been written about fastening foundation in sections, and so I will give my way of doing it:

Take a board 3 feet long, and 6 inches wide; to one side of this fasten 4 pieces, just half as thick as the boxes, and cut these blocks so that they will just fit inside of sections. Fasten these on the first piece of board about 8 inches apart; now place the board a little slanting, put the sections over these blocks, on the foundation, and place them in the section; have some melted wax in a basin, which is to be kept warm by placing it over a lamp. Have a small brush, and with one hand hold the foundation down to the top of the section, and with the other hand draw the brushful of melted wax along the lower edge of the section, and fasten all four of the edges before removing any of them, so that the wax can cool. When taking the section off, place them right side up. I think that if bee-keepers will try this, they will be satisfied with the plan.

Preble, N. Y.

QUEEN-CELLS.

When to Destroy Queen-Cells to Prevent Swarming.

Written for the American Bee Journal

BY EUGENE SECOR.

Good evening, Deacon Smith, what makes you look so smiling? Has Aunt Miranda taken the sweepstakes' prize for the best ten pounds of dairy butter at the International Dairy Fair? Or has her Plymouth Rock chickens hatched out thirteen to the dozen, without an incubator?

"Narry one. I'll tell you, neighbor, what makes me feel so good-natured to-night. When a fellow meets another who ought to know a good deal the most, and fellow number one finds out that fellow number two has to come to fellow number one to get the alphabet of what he ought to be graduated in, it makes fellow number one feel as

though he was of some use in the world, after all.

"It's queer that some folks go through this vale of tears with their eyes shut. As I was goin' along the road this mornin', farmer So-and-So hailed me, and wanted to know when was the best time to cut out queen-cells to keep the pesky bees from swarmin'. I thought he was trying to git some joke on me, and I told him the best time was when he found the bees buildin' cells. But soon I found out that he was in dead earnest.

"He thought the bees built the queen-cells in the spring, when they hadn't anything else to do. That was about the first of May, when the bees in these parts thought about as much of swarmin' as my two-year-old granddaughter does of gettin' married. Now, you know this man has about fifty hives of bees, and folks think what he don't know about 'em aint worth larnin'. But he don't take any bee-paper, and he hasn't any bee-book, and he lives too far from you to borrow, the way I have done. Some of his hives are half full of drone-comb. He never uses a smoker, and I reckon he don't see the inside of many hives but empty ones. But he is gettin' more enterprizin'. He wanted to stop swarmin'. And he thought if he could git me to go through and cut out the queen-cells before corn-plantin', it would be a wonderful savin' of labor.

"I told him that instead of bees being the wisest critters, they were the most cranky, hand-to-mouth animals I ever see. They never do nothin' because there's any reason for it, but because they don't know any better. They build queen-cells one day, and may be tear them down the next. They raise and feed a million drones when perhaps they don't need any. They stick their hives from top to bottom with bee-glue, when you have wintered them in the cellar for fifty years. They will nurse a worker-bee that lays drone-eggs, and kill the queen you try to give 'em.

"They will sting the hand that feeds 'em, just as quick as they will the fellow that robs 'em. They will leave the best hive on the farm to take up with some little hollow tree in the woods, where they are sure to freeze to death before spring. They are just as likely to swarm a few days before frost, if buckwheat gives any honey, as they are in basswood time. They are like some young folks that get love-struck, they will set up housekeepin' without any meal in the barrel, and a hard winter comin' on.

"After I had delivered myself after this fashion, all Mr. So-and-So said was, 'Well, I swan!'"

Forest City, Iowa.

SCHNEIDER'S ALBINOS.

Written for the American Bee Journal

BY M. R. CULLISON, M. D.

Mine vife she vend, dot uder day,
Ily neighbor Schneider's house
Ter see hees bees, and now she say
Mine bees are nix cooms ouse.

She dell me Schneider's bees are vite
Und yaller—like der gold;
Dhey vill nod shting, nor dry ter fite
Vhen by der vings der hold.

Hees hives—can leeft der dop ride off,
Dose bees dhey come nod out.
Dhey makes der combs weigh yust er bound,
Und minds vhat der about.

Und, Hans, dot Schneider vas er vitch!
I can nod undershtand—
Hees vife she said, *for sure* 'tis drue,
He shwarms dose bees by hand!

Und books—hee's more as I can dell;
He shtring 'em on der shelf,
Und say no mans can do so vell
What reads 'em nod heeself.

Und babers,—dhree er veek, I vow!
Reads just aboud der bees.
He say dod bees-ness is bud now
Sure in ids A B C's.

Und seex,—eight dousand bounds he sell
Vrom seexdy shtands—Shpring cound,
Made by dose vite and yaller bees
Vhat fly vor miles around.

Und hee's er kind or dwist machine
Vhat jumps dod honey kwick
Ride oud der combs! Mine hed got schwim
Dod honey bounce so shlick.

Now, all dose dhings,—und more as dot,
Mine vife just dalk er shtring—
Aboud dose bees vhat Schneider's got,
Dod vorks more as dhey shting.

I say, "Katrina, hold dod mondt;
I dakes nod vor der cute
Vhat cranky bee-mans say aboudt
Dhere bees more as der trute.

"Do'nd I kept bees nigh vordy year!
Vhile Schneider less as dhree!
Mine vodder keep bees all hees life!
Knows Schneider more as me?

"Und dose book-larnin—vhat ish dot!
Yust vooling dime avay;
Vhile I der hives rub mid der leaves
Vhat made der shwarms to shtay.

"Und all dose mans dod babers rides
Vhat comes dhree dimes er veek,
Sure bades dod hook,—und vools vhat bides
Makes fat dod peeg man's cheek.

"Und as ter shwarmin' bees by band—
I laft mine sides ter cruck,
He make dose vite und yaller bees
Mid bowder on der back."

Und dod high-fangle dwist machine—
A sausage grinder shlick!
I vonder how dod Schneider vool
Katrine on dod so kwick.

I grind mine honey vonce mid dod,
Und squeeze der vax like vice!
(I nod led Kitty found dod oud,
She keeps no secred nice).

Und vor dod bee as vill nod shting
Dhere's *von, doo* dhings, or *dhree*;
He vas er dhrone, he vas er king,
Or else no good vas he.

Und vor dose hive der dops come off,
I nail mine on ter shtay.
Und vor dose combs vhat weighs er bound—
Shades ov Munchausen's day!

Und seex,—eight donsand bounds ter sell
Vun year ov seexdy shtands!
Der vorld nod ead so much. Vor sure
He weigh dod mid hees hands.

Bud more as all I laft ad vhat
Katrina sez ter me—
Dod none vas ever half so blind
As him vhat don't can see!

Adel, Iowa.

BEE-STINGS.

Treating the Wounds—Bees and Bloom, etc.

Written for the American Bee Journal

BY REV. J. D. GEHRING.

My apiary east the first swarm of the season on April 28. It was a large one, and very cross—owing, I think, to scarcity of honey.

The best precaution against bee-stings is, I think, cool and deliberate movements, a veil to protect the face, much patience, and pluck enough to "grin and bear" what stings cannot be avoided. I am often much amused when I hear and read of the various remedies and cures for bee-stings; for all of them, to say the very least, are very unhandy for a busy man. The idea of my running to the house, leaving an open hive behind me, to get an application of soda water or some such thing! Who, when he is in the midst of an interesting job, which requires both hands, both eyes, and all the attention of the mind, can stop to doctor a bee-sting?

The nearest to a success for stings that I have yet tried, is tincture of *Ledum palustre*. I used to carry a little vial of it in my vest-pocket, and apply a few drops to a bad sting; but I soon found even that too unhandy. As a remedy for the *pain*, it is pretty nearly a success.

For a very bad case of stinging, such as I had two years ago when a swarm of Italians got after me when I tried to hive them, and stung me on the neck, throat and head, I used the homœopathic antidote—"Apis Mel No. 3," internally, in drop doses in water; four or five doses, from one to two hours apart. I think this remedy, used intelligently and promptly, will always prevent serious results; and even death in the worst cases.

The Irishman said: "A man can get used to 'most everything that befalls him, if it lasts long enough—and that's the reason one can never get used to hangin'." With a bee-keeper, "stingin'" lasts long enough so that, in course of time, he gets used to it. It is so in my case. Bee-stings cause me very little pain, and generally no inconvenience, except when I allow them to "jag" me in or near the eye. I need my eyesight as much as my wits, in the apiary; and hence I believe in being "green" enough to wear a veil when circumstances require one.

I have never had so many drones in my apiary as this spring. I thought I had control of that part of the business by having excluded drone comb, and by cutting off the heads of unhatched

drones "in due time;" but they have somehow got ahead of me. I would like to catch about 5,000 of them, if I could. I thought to have only pure Italian drones. But a neighbor of mine has about 50 hives of blacks and hybrids, and takes no thought of drones. So I have concluded to give up the batttle for the time being, for an apiary of pure yellow bees. My young queens stand a very poor chance this season. The air, on warm, sunny days, is full of black drones.

Bees and Fruit-Bloom.

In regard to bees and fruit-pollen, I would like to say this: Bees have, no doubt, much to do with the fertilization of fruit-bloom; but I cannot believe that success or failure depends altogether upon bees, or other insects. Of course when it rains, or is too cool for bees to work, the pollen of the fruit-blossoms is not carried from flower to flower, and mixed, as it is when the weather is just right. But the fact is, if it all depended upon the work of the various insects, we would never see much fruit, "rain or shine;" for, when the blossoms are wet, and the weather damp, the pollen is damp also, and, hence, the wind cannot waft it about. This, more than the work of the honey-bee, accounts for the scarcity of fruit when blooming occurs during damp and rainy weather.

Moving Bees—White Clover.

Last year I moved my bees five times—once by rail, and four times by wagon. I did not lose one colony, though they were moved on a common truck-wagon, over a rough, stony road, and taken by freight to Kansas, when they were very heavy with honey. Of course the much moving did not do them any good; but I mention it to show that moving, like anything else in bee-manipulation, can be done successfully and safely, if done in the right way.

I have 20 colonies and 4 new swarms. All came through the winter nicely. They had brood in March, and plenty of drones in April.

White clover promises a rich honey harvest, if it does not rain too much! It is just coming into bloom here, but, as yet, it contains no nectar. The weather is too cool, and I fear the rains will be too frequent for an abundant yield from white clover here in Douglass county, Kans. I consider it rather unfortunate, than otherwise, that white clover comes into bloom so early, before the sun gives heat enough to secrete nectar in the flowers. June is, no doubt, the best time in this latitude.

Lawrence, Kans., May 12, 1889.

WINTERING.

Maple Sugar for Bees—Pear-Bloom Honey.

Written for the American Bee Journal

BY O. L. HERSHISER.

Bees have wintered better in this locality than for several years past. All colonies that had half a chance have come through in fine condition. My observation has been, that colonies deeply covered with snow-drifts, and those well shaded, have wintered the best, and are more vigorous now than those that have been exposed to sunlight. I contemplate taking a few colonies to some well sheltered place in the woods to pass the next winter, by way of experiment.

Feeding Maple Sugar to Bees.

There are many good ways of feeding bees, some adapted to one season of the year, and other methods to other seasons. Having occasion to feed a few colonies this spring, I tried maple sugar, and though I do not say that it is the best food, and the best way of feeding, I am confident that it is good, and the best I have tried. It is as follows:

Take a thin cake of the desired amount of sugar, raise the cloth covering the bees, and place the cake over the cluster. It is but a moment's work, and practieally no heat is lost. The bees will store it slowly, and thus stimulate the queen to lay. Enough may be given at one time to last the season during which it is desired to feed. Maple sugar can be bought in quantity in the Buffalo markets for from 7 to 9 cents per pound. No objection can be urged against maple sugar on the score of economy.

Honey from Pear-Bloom, etc.

The spring was favorable for brood-rearing up to April 26, after which followed a week of cold, rainy weather, during which the bees consumed much honey in feeding young bees. A few of the colonies starved during this week of inclement weather, but now, how great the change! Bees are working with as much vigor as I ever saw them in the best honey-flow. Pear and hard-maple trees began blooming on May 7, in this locality, and from this source some of my strongest colonies are storing several pounds of honey per day, while the weakest are making more than a living.

I never saw honey so plentiful in pear bloom. It glistens like dew-drops, as has been often observed in bass-wood bloom, and is very white and of a delicate flavor. The flow of nectar from pear bloom is constant. The contented hum of the bee is heard in the pear orchards from sunrise to sunset. Apple trees will bloom in a few days.

Before the week of cold weather, referred to before, a few of the strongest colonies began preparations for swarming. One colony had a queen-cell with a larva ready to cap, and several hundred capped drones. The drones are now on the wing, but the bees postponed the swarming, and destroyed the young queen-larva.

Big Tree Corners, N. Y., May 9, 1889.

LANGSTROTH

On "The Hive and Honey-Bee," as Revised by Dadants.

Written for the American Bee Journal

BY G. W. DEMAREE.

I have had in my possession this great contribution to modern bee-keeping for two months or more, and notwithstanding I have been more than usually pressed for time, owing to business matters, etc., I have not neglected to examine with some thoroughness this fascinating work on bee-culture.

"The Hive and Honey-Bee," by Rev. L. L. Langstroth, is a pioneer work in modern bee-keeping, and has done more for the cause than all else besides; and now to have it thoroughly revised and brought up to the front, cannot fail to give a new impetus to practical bee-culture.

It would be impracticable for me to undertake to more than mention a few features of the revised work, and these must be of a practical nature.

Contraction, Patent-Hives, etc.

The majority of the bee-keeping fraternity are of an enthusiastic temperament, and therefore prone to extremes. Brood-chamber contraction, patent bee-hives, and a multiplicity of bee-gear have been carried beyond healthy limits, and the conservative stand taken by the reviewers of this standard work, on these subjects, is timely, and backed up by practical experience.

On page 173, the revisers "caution" beginners against being trapped by "patent hives." It required some sacrifice and moral courage to speak out on this subject just now, no doubt, but we honor the man, or men, who have *principles* and dare to maintain them. Who knows how much hard-earned money and vexatious disappointment will be saved to beginners in bee-culture, by this timely warning; as the voice of warning in this direction has been smothered and drowned

out for a time by the clammers of the "patent-right man."

The revisers take a proper view of the "contraction system." We want a system that will give the best possible yield of surplus honey, and at the same time leave the bees in a normal condition. Extravagant contraction can never meet these desirable ends.

Feeding Bees.

What is said in this new book on "feeding bees," is sound and practical. There is nothing better and more economical than good sealed honey for winter stores, or for spring feeding. Sugar feeding should only be resorted to when it becomes necessary on account of scarcity of honey.

Queen-Excluding Honey-Boards.

I was much pleased to see what these practical authors had to say about the use of the "slat honey-board." This implement has been well spoken of by many practical apiarists; and while I believed that much of the praise bestowed on the "break-joint principle" applied to honey-boards, had its origin in a desire to please the inventor, I was slow to pass upon its usefulness till I had tested it in every sort of season, and under all circumstances wherein a honey-board might be useful.

With me the slat honey-board is an unnecessary appendage. In a good season it is stuck fast to the tops of the brood-frames in a most provoking way, while it does not prevent the queen from going into the upper story; and when she does go above, she will sometimes settle down into busy life in the upper story, entirely abandoning the brood-nest proper. I have met with this provoking state of things in several cases.

The break-joint honey-board is a fussy arrangement, and is a real impediment in the way of the bees, and there should be very many good points about its use to over-balance its many faults.

The perforated-zinc queen-excluders I have found very useful to keep the queens out of the extracting-cases, as I believe that the very best article of honey cannot be taken with the extractor, from combs containing unsealed brood; for the reason that such combs usually contain more or less thin nectar in close proximity to the brood, which, when mixed with the thoroughly evaporated honey, acts as a *ferment* to the whole lot of honey with which it is mixed.

The chapter on comb foundation is exceedingly interesting, both historically and in a practical way. But I must close this line of thought with the thought, what a book is this before me!

Christiansburg, Ky.

BOX-ELDER.

A Tree that Yields Pollen very Plentifully.

Written for the American Bee Journal

BY WM. L. DREW.

On page 295, Mrs. L. Harrison recommends the box-elder (*Negundo aceroides*) as a tree valuable both for pollen and honey. Now, while it may be unsafe to positively say that the box-elder, or almost any other plant, yields no honey, yet I do not regard its value in that direction of any consequence.

The flowers of this tree are dioecious, that is, the pollen-producing flowers are on one tree, while the fertile flowers, or those which produce seed, are on another tree. On this latter tree, where we would expect to find the nectar, if any were produced, I have never seen a bee at work. On the other hand, bees work in great numbers on the honey-producing tree, but from examination of the flowers, and careful observation of the bees at work, I feel quite positive that no nectar at all is obtained.

I would not undervalue this tree, however. Besides being a native here in Iowa, it is widely cultivated for shade and blooms, and produces an abundance of pollen at a time when pollen is of great value—much more than honey, in fact. The flowers opened this year about April 15.

There is no other single plant that I know of from which the bees gather so much pollen, as from the box-elder; but it must be remembered that only a part of the trees, the stamenate, are of any value. The flowers are beautifully adapted for fertilization by the wind, and probably its fertilization is seldom accomplished through any other agency. Here, at least, is a plant upon which bees work in large numbers, and the plant receives no benefit therefrom.

Iowa City, Iowa.

WISCONSIN.

A Great Honey-Producing State—Early Swarming.

Written for the American Bee Journal

BY W. A. HODGE.

I am of the opinion that Wisconsin will in due time become one of the leading States in the production of bees and honey, at least that portion of the State bordering on the great Mississippi Valley, as the river bottoms average about four miles wide the entire length of the State, and are usually one vast ocean of flowers of almost all kinds, from July until November. The honey-bee can be seen gathering sweets from these bottoms fully a month after all flowers are killed on the highlands; and also in the springtime (March and April) the honey-bee is usually found gathering a goodly amount of pollen and honey from the soft maple and willow, of which there is a great abundance.

So, taking the foregoing advantages, together with upland forage, such as the clovers and fruit-blossoms of several kinds, we, or at least some of us Wisconsin bee-keepers, are beginning to see that poor, cold, Wisconsin has something in store for us, not to be enjoyed by every one living on the broad and boundless plains.

Some Early Swarms.

Now, as to early swarming: William Valliant, living two miles from me, on the river, on April 30 had a natural swarm of bees that were all right, and are doing nicely. On the tenth day from that time, the second swarm came out all right, and it is doing well also. Who is ahead of this? I have kept bees in Wisconsin for 25 years, and never heard of bees swarming naturally in April; if any Wisconsin man has, I should like to hear of it. Our bees are rushing the season here.

Victory, Wis., May 13, 1889.

CONVENTION DIRECTORY.

1889.	*Time and Place of Meeting.*
Dec. 4, 6.—	International, at Brantford, Ont., Canada. R. F. Holtermann, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

Bees are Booming.—Dr. A. B. Mason, Auburndale, O., on May 10, 1889, writes:

I did my first extracting to-day. I looked to see if the colonies were ready for the supers, and found that in one day some of them had filled everything nearly full of honey, and were capping it over, and building pieces of comb wherever there was a chance; I had to extract to give the queens room. There is "worlds" of fruit-bloom, and the bees are booming. It is so very dry that the white clover will be materially injured in a few days, if it dones not rain.

P. S.—May 11.—We had a splendid rain last night, and everybody and everything looks happy.

Susquehanna Co. Convention.—H. M. Seeley, Harford, Pa., Secretary of the Association, sends the following report:

The Susquehanna County Bee-Keepers' Association met at the Tarbel House, in Montrose, Pa., on Saturday, May 4, 1889. President E. B. Smith called the meeting to order, then the usual routine of business was attended to, after which was held the election of officers for the ensuing year, as follows: President, E. B. Smith; Vice-President, A. O. Warren; Secretary-Treasurer, H. M. Seeley. Various subjects pertaining to bee-culture were then discussed, and, taken altogether, it was very interesting, as well as an instructive one, being thoroughly enjoyed by all present.

Abundance of White Clover.—J. T. Wilson, Little Hickman, Ky., on May 13, 1889, says:

We are having copious showers now, which will give us an abundance of white clover; the ground is already white with it in places.

Early Pollen from Maples.—J. A. Williamson, Lake Station, Ind., writes:

I send a sample flower of what I call a "pollen-tree," because the bees gather pollen from it. Perhaps it has a different name, but I never have read of a tree of this kind, that the bees gather pollen from so early in the spring. They begin to work on it as soon as the frost is out of the ground, and it lasts till willows commence to bloom, making 5 or 6 weeks of blooming. The pollen is of a bright-yellow color. The tree is a rapid grower; the first year it makes a straight growth of 4 to 6 feet, and finally reaches the height of 50 or 60 feet. It is an ornament as well as a shade tree; its bark is of a drab or light grey color, and its tassels are from 1 to 2 feet in length.

[It is one of the maples, all of which yield pollen very early in the spring. —ED.]

Bee-Keeping in England.—Mr. Henry Neve, Warbleton, Sussex, England, on May 1, 1889, writes:

The last year here in England has been a most disastrous one to bees and bee-keepers; many thousand colonies have died from starvation and other causes, but principally occupants of straw hives. Very few colonies gathered sufficient during the past summer to carry them through the winter—some districts are entirely depopulated. The bees here are, as a rule, all wintered out-of-doors, cellaring of bees being unknown. Our spring is backward; the last week we have had a higher temperature, with much rain, so that the bees have not been able to do much. Here in the South, we have at the present time, blooming willows, dandelions, furze, and small fruit trees, which the bees are working on freely when the weather permits; no need for artificial pollen in my apiary in early spring—I suppose I have enough furze within half a mile, in full bloom, to supply 200 colonies with pollen. We are hoping for a better season this year; our sections, etc., are ready, for they are just as they were put on the hives last year, and taken off in the same condition. The AMERICAN BEE JOURNAL is a welcome visitor.

Hives Crowded with Honey.—James McNeill, Hudson, N. Y., on May 13, 1889, writes:

Bees have had a splendid time on apple-bloom. It was cold and rainy during cherry-bloom, so they got in only two days' work on that. But we have had real hot weather during apple-bloom, with the mercury up in the nineties some days, and before we knew it our bees, which were on seven frames, were crowded with honey. We had to "fly around" pretty lively to give them more room. The hot weather is bringing vegetation forward with a rush. The season is at least two weeks in advance of the average, and I never had my bees in such uniformly good condition at this time of the year. They will be in splendid condition for the harvest, which, of course, will depend altogether upon the weather.

Wintered Only One Colony.—W. H. Rowe, Bridgeport, Ind., on May 13, 1889, writes:

I have had very bad luck this spring. I left 8 colonies of my bees on the summer stands last fall, packed in leaves, as I thought in good condition, but I am sorry to say that during my absence from home, the bees starved, and out of 8 colonies I have only one left, and only saved that by chance. My bees stored no honey last fall, and I did not get a pound from them last year; but I think that we will have a good season this year, as clover looks well now, and is blooming some already. I started two years ago with 2 colonies, and did well until the past winter. The BEE JOURNAL is a welcome visitor, and I could not do without it.

Combs of Diseased Colonies.—Chas. D. Barber, Stockton, N. Y., on May 10, 1889, says:

The bees in this locality, as a general thing, wintered pretty well, but some bee-keepers lost nearly all they had. My loss was 8 colonies out of 11. All had plenty of honey, but they had the diarrhea, and one was queenless. Are the combs of these diseased colonies good to put other bees on again? The clover looks well, and the outlook for honey is very good.

[Yes; it will be quite safe to give the combs mentioned to the bees; they will clean out the dead bees, and use them without detriment—and will do it much better and cheaper than you can do it.—ED.]

Good Season Expected.—Jas. T. Fennel, Venice, Ills., on May 13, 1889, says:

White clover has been in bloom for about 12 or 13 days here—plenty of bloom, but the bees have not been working on it. They have been working on a yellow flower; but we had a rain yesterday, and I think they will go to work on white clover now. Bees wintered nicely, and I expect a good season this year. We have not had a good season here since 1886.

Working in the Sections.—Mr. Edward Margileth, Mt. Carroll, Ills., on May 10, 1889, says:

I put 53 colonies of bees into the cellar on Nov. 26, 1888, and took them out on March 15, 1889, without the loss of one colony. All are in good condition, and have plenty of honey. They carried in the first pollen March 17. At present the bees are working in the sections. The outlook for honey is very promising. White clover is now heading out.

Mineral Wax.—John C. Swaner, of Salt Lake City, Utah, writes as follows:

On page 259 is an item with comments, pertaining to ozocerite, or mineral wax. Utah has deposits of such a mineral, but as far as can be ascertained, they are not as yet very extensive. A company has been incorporated with the intention of mining it, but as nearly as can be ascertained, there has been only one carload put on the market. It can as yet only be found in one location (so I am informed), and that in not very large quantities. I examined some samples

in the Chamber of Commerce building in this city, but I could not get any, or I should have sent a sample to the office of the AMERICAN BEE JOURNAL. The article that I saw was as black as coal, and had a dull appearance. I am informed that it can be bleached white. It might be a fair substitute for beeswax in some instances, but I do not think that there need be any uneasiness on the part of bee-keepers, on account of it. The foregoing are all the points that I have been able to get in regard to it.

Good Prospect for Honey.—Orrin Maker, Westfield, Ind., writes:

On May 11 I attended the county bee-meeting, and all reported their bees in good condition. The loss through the winter was heavy—not less than 25 per cent. The prospect is good for a honey crop.

The White Clover, etc.—Lionel Brokaw, Summer Hill, Ills., on May 13, 1889, says:

White clover looks promising, and is beginning to bloom. We had a nice rain to-day, which was needed very much.

Swarming Early, etc.—Caspar Capser, St. Joseph, Minn., on May 4, 1889, says:

I wintered 32 colonies of bees in the cellar, the past winter. Last year I had 2,300 pounds of honey, mostly in one-pound sections. I lost no bees in wintering, and every colony is strong enough to cast a swarm this month. I had the first swarm on May 2, which is earlier than any I have yet heard of; it is doing well.

Bee-keeping in Alabama.—B. B. Toney, Padgett, Ala., on May 11, 1889. writes:

My bees are all doing well now. We have had one of the most backward springs for bees for several years. The peach-bloom was plentiful, but it secreted very little honey. The apple-bloom was scarce, and also secreted but little honey; and this failure caused the bees to consume all of their winter stores, and for a few days it seemed that we would have to feed to keep them increasing. But the first of this week the poplar opened, together with the white clover, and ever since then it has been a constant roar. The bees are now storing honey as rapidly as they did last year, and our prospects now are very fine. My bees are in care of a first-class hand (Mr. Hall), who is constantly busy preparing and putting on sections for surplus honey, as the bees have commenced to work in them. The present outlook in northeast Alabama is favorable.

Poplar and White Clover.—T. M. Edwards, Kerrville, Tenn., on May 13, 1889, says:

My 150 colonies of bees are now booming, and all are in fine condition. I took off comb honey all last week. I have one swarm that was hived April 17, that has filled 56 one-pound sections already. The poplar and white clover are fine, and the former is at its best; it never fails to give a good yield of honey. We are having quite a drouth at this time, and would be very glad to have rain.

Backward Spring—Gathering Honey.—Miss Helen Betten, Goodells, Mich., on May 13, 1889, writes:

In May, 1888, I bought 2 colonies of bees in box-hives, and placed them in the yard. In June and July I had 3 swarms from the 2 colonies, and the latter part of July I transferred the 2 old colonies to the Armstrong reversible hive, and used the T super. I secured 24 pounds of comb honey, and 12 pounds of extracted. In October I doubled two of the weakest colonies, leaving me 4 to winter, which was done successfully. I packed the bees for winter on Nov. 1, 1888, and I did not touch them until the last of March; when I opened the hives, I found them all well stocked with bees, brood and young bees, and they are gathering honey from fruit-bloom. I expect to have some swarms soon. We have had a backward spring, but the weather is warm and pleasant, and the bees are making good use of it.

Ruined by Paris Green.—John G. Smith, Barry, Ills., on May 15, 1889, writes:

The past winter was very mild in this locality, and bees have wintered well generally. I never had my bees in better condition up to within two weeks ago—in fact I was too much elated over the prospect of harvesting the largest prospective crop of spring honey that I ever saw; white clover never looked finer, or promised a greater yield of nectar, than it does at this time; but alas! the apple-bloom proved a "death-warrant" to millions of bees in this immediate neighborhood. One of my neighbors, owning an orchard of about 100 acres of apple trees, sprayed the trees with Paris green dissolved in water, just as the trees were in full bloom; and, lo, our bees got the full benefit. The result is, that about ten or twelve bee-keepers have been totally ruined, as far as getting a spring crop of honey is concerned. The young bees of the colonies that had never been out to the fields, came out of their hives by the thousands, and went hopping all over the grounds; the larvæ in all stages of growth, both drone and worker, were thrown out of the hives by the (I suppose) well bees. Yesterday I examined 4 colonies of the poisoned bees belonging to Mr. Charles Dodge, and I could not find any queen or freshly-layed eggs. I do not know whether the queens are all killed by the poison, or not. Truly, the path of the bee-keeper is a hard one.

Bees at Work Early.—S. D. Haskin, Waterville, Minn., on May 13, 1889, says:

Are my bees ahead this time? On the first day of this month I had a fertilized this-year's queen laying freely; and yesterday (May 12) I had a large swarm of bees, which I hived.

Prospects for Honey are Very Favorable.—Adolph Ott, Geneseo, Ills., on May 6, 1889, writes:

The weather is fine, and we had a nice shower last night. I have 10 colonies of bees, which are in good trim, and 4 of them are already working in the surplus sections. I am 37 years old, and have been with bees for 37 years, never being away from them. Father always had from 5 to 40 colonies, but never got any good out of them. I have had bees for myself for the last 14 years, but only commenced making a study of them about 4 years ago. I have them in such a shape now that I can handle them, and I find it pays. I wintered my bees in the barn, where I have a place so warm that it won't freeze in the severest of weather. I never lost any when wintered in the barn. The last two years were bad ones for bees in this part of the State; but this spring everything looks favorable for a large honey crop.

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Brantford, Ont., Canada.

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CONTENTS OF THE MAY NUMBER.

—:o:—

Our Great Birthday; Celebrating the Centennial of Popular Government—by the Editor..... 39
Illustrations: The Centennial Eagle—The Marine Parade Passing Under the Brooklyn Bridge—A Restaurant Crowd—Decoration of the Sub-Treasury—The President Speaking—A Glimpse of the Ball—Major Burgess Ball.
President Washington and his Successors.. (Illustrated)..... 43
Poetry:—"The Month of September"—by Geo. Arnold..... 44
The French Centennial..... 45
Illustrations: Algiers Pavilion—Tunis Pavilion—Pavilion of Cochin China and Siam—Tonquin Village.
Science and Progress..... 46
Illustrations: Excavation in Frozen Quicksand—Excavation for a Bridge Pier.
Poem—"My Sweet-Heart"—by E. Secor.... 47
The Challenge Accepted; or, How Kate Clifford Won—Chapter II..... 47
Feathered Songsters' Welcome to Spring (Illustration)..... 49
Fashions—"What Shall we Wear?"..... 51
Illustrations: Evening Toilets—New Spring Visite.
Our Young Folks:—"What are You Going to Do?"—by George W. York..... 52
Illustrations: Cheering of the Faithful Mother Bird—We are Gladsome and Cheerful—We Scuttle and we Scamper.
Music:—Song, "My Grandmother's Quilt" 54
A Moment of Anger; or, The Quarrel of Mr. and Mrs. Brownlow—Chapters III and IV..... 56
Illustrations: It Seems Probable Now—The Ragamuffin was Obliged to Disclose his Find—It is a Lie.
Poetry:—"To my Setter, Scout"—by Frank Selden..... 59
Poetry:—"Birds Sing to the Heart"..... 59
Poetry:—"The Coming of April"—by Mrs. M. J. Smith..... 60
The Puzzler (Illustrated)..... 59
The Double Grave; or, How Sue Mendenhall was Won by Roy Filmore—by Mrs. Mahala B. Chaddock..... 60
Illustration: We are Going to the Church Now to be Married.
Poem:—"Spring" (Illustrated)..... 60
Biographical:—Mr. Eugene Secor (Illustrated)..... 63
Poetry:—"The Frost on the Punkin"—by James Whitcomb Riley..... 63
MISCELLANY:—
A Grave Affair..... 46
Anchor of Faith..... 55
An Ingenious Arrangement..... 64
A Reminiscence of Paine..... 59
Capt. Murrell of the Missouri (Illustrated) 64
Chocolate Pudding..... 64
Dinner-Table Decorations..... 64
Elegant Evening Toilets..... 51
English Official Salaries..... 53
Excavation through Quicksands, etc..... 46
Fish-Net Dresses..... 51
Gen. Butler's Ready Wit..... 44
He Broke Down at Last..... 51
Inhabited Moon..... 55
Interesting Statistics..... 55
Logical..... 59
May Day Excursions..... 53
Mary had a Little Lamb..... 53
Newest Evening Dresses..... 46
New Fancy in Marking Linen..... 53
New Gunpowder..... 46
New York Firemen's Salaries..... 51
Novelties in Jet Garniture..... 51
Nye in Chicago..... 65
Oil in Laundry Work..... 64
Physiology and Hygiene..... 65
Robert Collyer's Factory Bell..... 53
Small Type-Writer..... 51
Social Etiquette..... 64
Spring Wraps and Jackets..... 51
The Brain..... 62
The Lady-Bug's History..... 53
The President's Carriage..... 44
The Ruling Passion..... 65
Things Boys Should Learn..... 53
To Remove a Glass Stopper..... 64
United States Mints..... 53
Washington as a Commander..... 44
Watch Statistics..... 65
All Around the House—Decorative and Practical Work..... 64
Poker—or Scorched Work (Illustrated) 64
EDITORIAL ITEMS:..... 66
Cheering the Faithful—A Spring Scene—The Feathered Songsters—Our Serial Stories.
Personal and Press Opinions..... 67

Press and Personal Opinions.

Never did the advent of a magazine for the Family touch such a responsive chord, or receive such a hearty welcome.

What the Other Periodicals Say of it:

The *Canadian Honey Producer* records its opinion thus: "Thomas G. Newman & Son, well known amongst bee-keepers and others, as the editors and publishers of the AMERICAN BEE JOURNAL, have taken in hand the publication of the ILLUSTRATED HOME JOURNAL, a periodical abounding with instructive and interesting first-class literature. There is too much poisonous literature at the present day, and we congratulate Messrs. Newman upon the appearance of their Journal."

The *Bee Hive* says: "The contents of the ILLUSTRATED HOME JOURNAL are varied and well chosen for instruction and amusement. 'One Hundred Years a Nation,' by the Editor, is an able tribute to our Nation's progress. Stories, current items, etc., follow—among which is an interesting sketch of Washington's Monument."

Personal Opinions Concerning it.

Mrs. L. Harrison, of Peoria, Ills., records her opinion in this language: "Many sample copies of various publications find their way to our desk, and soon are nestling in the waste-basket; but when the ILLUSTRATED HOME JOURNAL came, bearing the name of that well-known firm (Thomas G. Newman & Son), it met a very different reception. It was read and re-read, and its contents well noted, and then loaned to a neighbor. We wish it success, and predict for it a glorious future."

W. M. Barnum, of Angelica, N. Y., writes as follows: "The ILLUSTRATED HOME JOURNAL unexpectedly (but welcomly) found its way to our sanctum recently. It is a beautiful and intensely interesting Journal—well worthy of Publisher Newman's zeal. May it prove a success!"

J. M. Shuck, of Des Moines, Iowa, records his opinion thus: "The Illustrated Home Journal is a gem of the first water—appreciated as soon as seen."

James A. Green, of Dayton, Ills., expresses himself thus: "I am very much pleased with the Illustrated Home Journal. I wish and predict for it success. Interesting, instructive, typographically perfect, with ability and enterprise at the helm, it is bound to succeed."

J. M. Jenkins, of Wetumpka, Ala., writes: "The Illustrated Home Journal is received. We are all delighted with it. Success to it."

☞ A Sample Copy will be sent free, upon application.

The ILLUSTRATED HOME JOURNAL is a high-toned, moral and intellectual educator, invaluable in every library, and a very attractive and inspiring ornament in every drawing-room.

Its stories are elevating in tone, as well as charmingly thrilling and captivating; its historical and biographical sketches are fascinating and delightful; its Department for "Our Young Folks" is enticing and alluring; and its miscellaneous matter leads to the higher life, and the moulding of more beautiful thoughts and affections.

Reader, if you receive a number of the ILLUSTRATED HOME JOURNAL as a sample, you may know that it is sent to you expecting that you will be SO MUCH PLEASED with it, that you will subscribe for it at once. With a very little effort you can get your neighbors to join you, and thus get up a club, entitling you to a free copy, as well as one of our valuable premiums. Try it.

Send us the Names and addresses of those of your friends upon whom you desire to call to get their subscriptions, and we will immediately send them each a sample copy. In this way you can readily obtain them for your club, for all who see the ILLUSTRATED HOME JOURNAL will desire to subscribe for it.

The Articles offered as premiums are all purchased at lowest wholesale rates, and the club raisers get the benefit of the discount. In this way we are able to give premiums of greater value than if we gave them cash. New premiums will be enumerated in future numbers of the ILLUSTRATED HOME JOURNAL.

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DETROIT.

HONEY.—Best white 1-lbs., 14@15c. Market is dull and lower, but not overstocked. Demand slow.
BEESWAX.—22@23c.
Apr. 30. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—We quote: White 1-lbs. 15@16c.; dark, 10@12c.; California white 2-lbs., 11@12c.; amber, 10@11c. Extracted, white, 7@8c.; dark, 5@6c. Our market is in good condition for the new crop.
BEESWAX.—20c.
May 11. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Extracted, in barrels, 6½@6¾. Excellent demand for clear, bright in barrels.
BEESWAX.—22c. for prime.
May 4. D. G. TUTT & CO., Commercial St.

CHICAGO.

HONEY.—Our trade is light; no large lots on hand and what there is consists chiefly of dark comb, and not salable in quantities. Choice white comb, 1-lb. sections, 16@17c.; dark grades from 10@12c. Very little demand for extracted, but prices remain at 7@9c., according to quality and package.
BEESWAX,—22c. R. A. BURNETT,
Mar. 25. 161 South Water St.

DENVER.

HONEY.—White, in 1-lb. sections, 16@18c. Extracted, 7@10c.
BEESWAX.—18@20c.
Mar. 26. J. M. CLARK & CO., 1409 Fifteenth St.

MILWAUKEE.

HONEY.—We quote: Fancy white 1-lbs., 17@18c.; 2-lbs., 16@17c. Good dark 1-lbs., 15@16c.; 2-lbs., 14@15c. If damaged and leaky, 10@12½c. Extracted, white, in barrels, 8@8½c.; ½-barrels, 8½@9c.; amber in same, 7@7½c.; in pails and tin, white, 9@9½c.; in barrels and ½-barrels, dark, 6@6½c. The demand is fair.
BEESWAX.—20@22c.
Mar. 27. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—Market is bare of comb, except some small lots of buckwheat which is selling at from 10@12c. No buckwheat extracted. Cuba and San Domingo extracted, 67@70c. per gallon.
BEESWAX.—24c.
HILDRETH BROS. & SEGELKEN,
Mar. 25. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 18@20c.; best 2-lbs., 17@18c. Extracted, 8@9c.
Sales have been checked a little on account of maple sugar and syrup being so plentiful. Sales of honey are very slow.
Apr. 23. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNAT

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 12@15c. Demand is slow, and prices low.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Mar. 21. C. F. MUTH & SON, Freeman & Central Av.

Advertisements.

ITALIAN Queens, Tested, $1.25.; Untested, 75c., 3 for $2. Circular of Bee-Supplies, &c. *free.* JNO. NEBEL & SON, High Hill, Mo.
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May 16, 1889.

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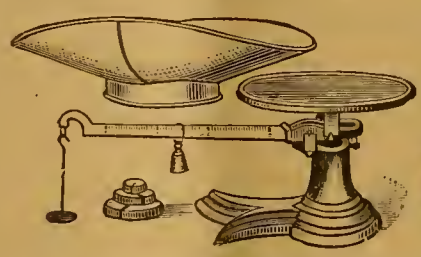

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20A2t

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Address, **J. M. KINZIE,**
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AT Plattsmouth, Nebr., to sell 3-frame (size 9¼x17⅝) Nucleus Colonies of ITALIAN BEES, with Queens, at $2.50 each—brood in 2 frames or more—¾ to 1 lb. of Bees. **J. M. YOUNG,**
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Mention the American Bee Journal.

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BEES AND QUEENS. Send for free catalogue. Address
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Mention the American Bee Journal.

PATENTS THOS. P. SIMPSON, Washington, D. C. No atty's fee until Patent obtained. Write for Inventor's Guide.
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3,000 4¼x4¼ One-Piece Sections at $3.50 per 1,000; orders over, write for special prices Brood-Frames, Metal Corners, Smokers, Honey-Extractors and Fruit-Boxes. Send for Price-List, free. Only sent on application. 20Atf
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100 COLONIES

OF ITALIAN and HYBRID BEES for Sale in fine condition. Also **JAPANESE BUCKWHEAT.** Write for prices—away down. **A. J. & E. HATFIELD,**
20Atf SOUTH BEND, IND.
Written for the American Bee Journal

My 21st Annual Price-List of Italian, Cyprian and Holy-Land Bees, Queens and Nuclei Colonies (a specialty): also Supplies—will be sent to all who send their names and addresses. **H. H. BROWN,**
17Dtf LIGHT STREET, Columbia Co., PA.
Mention the American Bee Journal.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. June 1, 1889. No. 22.

EDITORIAL BUZZINGS.

"Let old and young unite
On faithful hearts to write
Firm loyalty.
In grateful mem'ry keep
Heroes in soldier sleep
On land, or in the deep,
For liberty."

We had a short but enjoyable visit from Mr. J. E. Pond, of North Attleboro, Mass., last week. He was on his way home from Minnesota, where he had been, for a few days, on professional business.

We Regret to learn that Mr. W. W. Cary, of Coleraine, Mass., is unable to attend to business, having been *sick* for some time. This information comes from his good wife. We hope for a speedy recovery, and a safe return to his usual good heath.

Memorial Day has come again and passed into history. To decorate the graves of the patriotic dead with flowers, once a year, is a fitting tribute to their memory, and should receive that hallowed tenderness at the hands of every patriotic citizen.

The Bee-Keepers' Pocket Companion is the title of a little book of 32 pages, with thick covers, just issued by the Crown Bee Company, Brighton, England. Besides a monthly calendar, it contains many interesting items of instruction for bee-keepers. The arrangement of the book, and the instructions are given by Mr. S. Simmins, the manager of the company, with whom our readers are familiar, as he is the author of the book entitled, "A Modern Bee-Farm, and its Economic Management."

It is Not True that honey in its purity is so scarce as some try to make out. The *Sanitary Era*, a paper published in New York, was sent to us sometime since by one of our readers, with an article marked, which, after stating that honey was an excellent remedy for many diseases, preserving fruit, etc., went on to say this:

The difficulty is to get honey, for love or money. It is almost useless to look for it outside of the native comb; and since the comb has begun to be made artificially to save the bees the trouble, there is no security that artificial honey of glucose and sugar, with a little bitter almond flavoring, may not take the rest of the business out of the mouths of these insects.

It is said that bee-keepers want a law similar in effect to that on the sale of oleomargarine. The manufacturers of artificial honey should be obliged to stamp their product so that the public will not be deceived.

No! No! The *Sanitary Era* is informed that bee-keepers do not want any law similar to the oleomargarine law. That law recognizes and legalizes an abomination, and would do the same with "artificial honey," if such a law were enacted.

Adulteration should be frowned down—not legalized! It should be crushed out of existence—not made respectable!

But the statement made by the *Sanitary Era*, that it is difficult to get pure honey "for love or money," is a glaring untruth. It can be obtained in all its virgin purity in almost any quantity, on a few day's notice, either at this office, or of any bee-keeper or honest honey dealer.

This is but another version of the Wiley lie. Comb is not made artificially to be filled with glucose and sold for honey! No, sir. Weed, in Detroit, tried to bolster up Wiley's lie by a poor substitute for comb, but it is safe to say that comb has never yet been made artificially, and we do not think it ever will be.

The *Sanitary Era* has been "sold" by the ever-flying falsehood, and now should give place in its columns to the truth—and thus counteract, as far as possible, its evil effects. If it is fair, and had an honest intention in writing as it did, it will gladly tell its readers the truth of the matter. We shall easily measure its stature by its action.

The First White Clover Bloom.—Allen Latham, of Cambridge, Mass., on May 18, 1889, wrote as follows:

I send the first blossms of white clover that I have seen this spring. They are good, healthy blossoms, and if they fulfil their promise, there will be a great honey year in this State. I never saw the clover more promising, nor the bees in better condition.

The blossoms came duly, and promise well for a good honey crop, if other conditions are favorable. The West greets the East upon its prospect, and hopes for a large harvest for the whole country—East, West, North and South.

"This is the first quarter of the honeymoon," remarked Jinks as he handed his bride twenty-five cents.—*Exchange.*

Jordan Springs, Va., is a famous watering place, and the hotel is kept by our friend E. C. Jordan. Mr. Wellington, who has just gone down there from East Saginaw, Mich., writes thus:

I have just spent nearly an entire day in the apiary of Mr. E. C. Jordan, who has a fine lot of bees in a splendid location. I arrived here on the morning of May 10, and found Mr. Jordan suffering greatly from a badly swollen right hand. Two or three days before he had been bitten by a squirrel, and the day that I came he was out; since then he has been confined to his bed, suffering intensely; and although he has been kept under the influence of opiates, he has gotten but little rest, and has taken hardly any nourishment for the past five days.

To-day (May 15) the attending physician lanced the hand, and predicted great relief; but seven or eight hours has passed, and the relief has not come. The prospect now is that Mr. Jordan may lose his hand.

Mrs. Jordan, a most estimable lady, has been constantly at her husband's bedside, and is nearly worn out. Although the family have been so greatly afflicted since I have been here, I have been most royally entertained. They are the kindest and most hospitable people I have ever met.

I have not been in this locality long enough to form much of an idea about the country, but what I have seen I like very much. Bees seem to do well here.

Later news, through Mr. J. H. Wellington, informs us that, on May 22, Mr. Jordan was a little better, but not out of danger. That baneful disease, erysipelas, has complicated matters by its presence—and, worse still, the strain on the nerves of his devoted wife and faithful nurse, has been too much, and she is now confined to her bed by a severe attack of neuralgia. We deeply sympathize with these afflicted ones, and hope for speedy restoration to health.

Judge W. H. Andrews, of McKinney, Texas, one of the best apiarists of the South, delivered four lectures on bee-keeping before the Texas Bee-Keepers' Association, at its late meeting at Greenville, Texas. The lectures covered every point in southern bee-keeping. B. F. Carroll, the chairman of the committee on programme, says: "It is believed by this committee that more light has gone out from its meetings than from any like body in America." That is saying considerable, but it may come pretty near the truth, "for a' that, and a' that."

The Judge will no doubt formulate his ideas, and give them to the public before long.

Red Ants are sometimes very troublesome, and a subscriber wants to know how to get rid of them. This can be done after finding their nests by sprinkling powdered borax around it, and when a rain comes, it will be carried down into the nest, and they will then remove to new quarters to get rid of the soapy borax.

The Rev. George Raynor, one of the most eminent English bee-keepers, died on May 3, 1889, aged 70 years. The cause of his death was, *angina pectoris.*

A Swarm of Golden Bees.

"That orbed maiden with white fire laden,
Whom mortals call the moon,
Glides glimmering o'er my fleece-like floor,
By the mid-night breezes strewn.

"And wherever the beat of her unseen feet,
Which only the angels hear,
May have broken the woof of my tent's thin roof,
The stars peep behind her and peer.

"And I laugh to see them whirl and flee,
Like a swarm of golden bees,
When I widen the rent in my wind-built tent,
Till the calm river, lakes, and seas,
Like strips of the sky fallen through me on high,
Are each paved with the moon and these."

—From "The Cloud," by Shelley.

GLEAMS OF NEWS.

Prof. Cook's Lecture recently at Albany, is reported thus in the *Country Gentleman*, published in that city :

For years many of our best bee-keepers have urged that only specialists should keep bees. The last two years of failure have convinced many of these that it would be better to unite bee-keeping with some other industry. Bee-keeping is *par excellence* a pursuit to add to some other. It serves as recreation, and often gives a large profit. Farmers and fruit-growers, as the very successful experience of many has shown, are just the ones, it naturally fitted for the business, to add apiculture to their other cares. Thus the farmer may have better crops, and may save the nectar that otherwise would go to waste, and which may be the most profitable product of the farm.

The study which bee-keeping requires will be enjoyed, and may be made the means to interest the boys and girls in the farm. The speaker had known several such cases. But let the boys and girls know that the profits are to be theirs. Then bee-keeping, in conjunction with farming, can be made a great success. How will the product of such bee-keeping be put on the market in poor condition ? Unmarketable honey comes from the slovenly and the untidy, alike, whether he be a specialist or amateur.

The idea that the busy season with the farmer and bee-keeper is one and the same, need discourage no one. With proper thought and care the labor with bees in June and July may be reduced to small proportions, and can mostly be performed by a boy or girl. And here is a way to interest our girls, to give them air and sunshine, and a chance to earn money. Some of the best bee-keepers in the country are just such farm girls.

To work successfully,one must thoroughly prepare himself by studying a good book, reading one of the best bee-periodicals, and, when possible, spending a day or two with some well-informed and successful bee-keeper. In the farm home, during the long winter evenings, the books can be read aloud, and the business discussed by father and children. This keeps father and children just where they ought to be as night comes on.

Directions were given as to where and how to secure the bees, and the point was urged to go slow ; commencing with 2 or 3 colonies of bees, and increasing as experience, success and knowledge suggested. If no money was paid out after the first start, no great loss could be experienced, and usually such a course brought success, pleasure and satisfaction.

If the first purchase is made of some neighboring bee-keeper, we are likely to do better, and make a friend who will come to the rescue, if breakers confront us in our work in the bee-yard.

With proper thought, study and care it will be found that the new pursuit brings pleasure and profit, and its adoption by the studious and thoughtful man will rarely be regretted.

Tid-Bits from the pen of friend G. M. Doolittle, in the *Rural Home :*

If any one wishes a little keen enjoyment of his pets, the bees, let him put out some finely-ground corn-meal in some sunny nook in early spring, before any pollen can be had from the fields, placing a piece of comb in the same, so that the bees may be drawn to it. They will soon begin to pack the meal in their pollen baskets, and carry it to the hive. They will roll around in it like little pigs, and cut up all sorts of antics, greatly to the amusement of the children, and most of the older ones also.

When among the bees let your movements be deliberate, and do not appear to fear the bees ; quick, nervous movements the bees resent. If a bee is troublesome, and you wish to retreat, put up your hands quietly and shield your face, and as quietly retreat ; if you throw up your hands wildly and run, you may be sure you will lose the race, and the bees will leave you in a peculiar state of mind ; not a calm and peaceful frame I assure you, but perhaps one which will enable you to heed these instructions better than such a state of mind would.

Bees and Honey.—The *Sentinel*, Rayne, La., has this to say about our book entitled "Bees and Honey :"

Mr. Newman is a prolific writer on apiculture, is editor of the AMERICAN BEE JOURNAL, and is a well-known authority. The pretty bound book before us contains detailed instruction as to the management and care of bees, the preparation and shipment of honey to market, bee-pasturage, nutritive qualities of honey, etc. In fact, no lover of the industrious little insect should be without the book, or fail to subscribe for his well-known periodical, the AMERICAN BEE JOURNAL, which is one of our most valued exchanges.

Herr Emil Hilbert, of Maciejewo, Germany, has sent us two of his latest pamphlets. One is on "Foul Brood in Bees, its Cause and Cure," and the other is on "Chicken Cholera." He invites us to translate and publish the former, and if some good German scholar will take the trouble to read and translate the salient points for us, we shall be pleased to publish pretty full extracts. Herr Hilbert is good authority on bees. We met him at the bee and honey show and convention at Prague ten years ago, and had an excellent visit with him, and Dr. Dzierzon, Dr. Pollman (of Russia), the Baroness of Berlepsch, and many other prominent apiarists of Europe.

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Brantford, Ont., Canada.

The Statistics, as gathered by the Honey-Producers' Exchange, are received, and show that the losses in the past winter were only about 8 per cent. ; the present condition of the colonies is good ; and the prospect for a honey crop was never better.

Japanese Buckwheat.—Prof. A. J. Cook, of the Agricultural College, Mich., says that the Japanese buckwheat is the best variety for grain and also for honey. He says farmers, and especially bee-keeping farmers, should sow it as a part of their crop. It is sown late in June. It is an excellent crop to precede corn on land that is infested with white worms. It seems to starve out these terribly destructive grubs. Again it is a profitable crop, often paying better than wheat. Not only this, it gives us the basis of our buckwheat cakes which with honey will tempt the most capricious appetite. The blossoms oftentimes furnish nectar for the bees when all else fails.—*National Stockman.*

Here are some more recipes where honey is used to advantage :

FOR WORMS.—Before breakfast take a table-spoonful of honey ; or a tea made of peppermint sweetened with one-half its bulk of honey.

HONEY mixed with flour into a paste just thick enough to run, will be found most efficient in the treatment of boils. Put it on as a poultice.

FOR CROUP AND HOARSENESS.—A gargle made of sage-tea sweetened with honey, or "pills" made of mustard, flour and water.

Why Advertise in the AMERICAN BEE JOURNAL ? Here are some good reasons for patronizing the advertising space in this bee-periodical :

1. Because it has a large and influential circulation in every State and Territory, Canada, and other foreign countries.

2. Because it is well-printed, and an advertisement in it appears neat and attractive, and invites a reading.

3. Because it reaches just the class of persons desired—professional men, lawyers, doctors, and the best of the rural population.

4. The rates are low as possible, and the returns from advertisements are satisfactory.

Catalogues for 1889 are on our desk from—

J. G. Aten, Jefferson, O.—6 pages—Bee-Keepers' Supplies.

Thos. L. Thornton, Dividing Ridge, Ky.—6 pages—Bees, Honey, and Apiarian Supplies.

Is that your Husband, ma'am ?

He be.

Is that your wife, sir ?

She be.

Ah, that's pleasant ; a he bee and a she bee can't fail to taste the sweets of life.—*Texas Siftings.*

PRESERVES.

All the summer weather,
Saying naught of "nerves,"
Toils a little house-wife
Making choice preserves.
How she does her cooking
Surely no one knows,
Tho' they watch her daily
While she comes and goes.

More than half her goodies
Go to pay her rent,
Yet in every season
She is well content;
And from noon till even
And from morn till noon
Even at her labor
Hums a pleasant tune.

Rose and lily syrup,
Richest clover jam,
Fill her tiny fruit-jars
Full as she can cram.
Now you've guessed my riddle,
And you'll all agree
That the name we call her
Always ends with *Bee*.
—*Youth's Companion.*

QUERIES & REPLIES.

Beverages with Honey as a Main Ingredient.

Written for the American Bee Journal

Query 633.—Please describe a good method of making mead, metheglin, lipeiz (a Russian drink), and any other desirable drink with honey as main ingredient.—Canada.

Pure water is the most desirable drink that I know of.—H. D. CUTTING.

I know nothing of the subject or matter.—J. E. POND.

I have had no experience.—J. P. H. BROWN.

I would not make any fermented drink of honey.—EUGENE SECOR.

I am not posted. We are cold-water people at our house.—A. J. COOK.

I never made any, and think that good, *pure water* is much better.—C. H. DIBBERN.

Cold water is the best drink for man, used with moderation.—G. M. DOOLITTLE.

Mead is made by sweetening water with honey until it is a little sweeter than maple-sugar water. Metheglin is the same honey and water after it has fermented.—MAHALA B. CHADDOCK.

The best methods are fully described in Thomas G. Newman's valuable little pamphlet entitled, "Honey as Food and Medicine."—G. L. TINKER.

I do not know. I do not approve of beverages simply to tickle the palate. —J. M. SHUCK.

You will find a good description of the methods for making these drinks in "Honey as Food and Medicine," by Thomas G. Newman.—MRS. L. HARRISON.

I think it is not desirable to make mead, metheglin, or any other fermentable substance.—M. MAHIN.

I have had no experience, and I have some doubt if any good drink can be made with honey as *main* ingredient. I surely would not call it a good drink if intoxicating.—C. C. MILLER.

None that you name are desirable drinks—do not make any of them. What a grand thing it would be, in an economical point of view, to say nothing of men's souls and bodies, if everything containing alcohol were doomed as a beverage.—R. L. TAYLOR.

The best wine that we ever made with honey and grapes was made as follows: To each gallon of grape-juice, add 2 pounds of honey that has been thoroughly boiled. Three pounds of honey to a gallon of water, boiled, with a very little grape-juice added, will make a splendid drink for dyspeptics, taken at meal-time with addition of water. It should be taken care of, like wines, and is best when at least three years old.—DADANT & SON.

I have experience only in making wine and vinegar from honey as a sweetener. I can make very fine wines by the use of honey, and the best of vinegar, but I am awfully "sot" on temperance, and this takes the enthusiasm out of me as to the wine; but the vinegar is all right. This department will not admit of space to give the methods employed to make wines, etc.—G. W. DEMAREE.

I do not know of any "desirable drink with honey as the main ingredient." The "main ingredient," and the most "desirable" in all the "drinks" I ever saw, tasted or heard of, is *water*. If some milk is added, it does not detract from its "desirableness" for my use. If you Canucks have not enough variety in "drinks," just send 5 cents (or rather, send the price of two "drinks") to Thomas G. Newman & Son, for a nice little work entitled, "Honey as Food and Medicine," and get over a page of "drinks" that have honey in them, and 27 pages of good reading besides.—A. B. MASON.

Our good editor says this in "Bees and Honey:" "Metheglin is made by mixing honey and water strong enough to carry an egg; let it stand three or four weeks in a warm place to ferment; then drain through a cloth, and add some spices to suit the taste." Also, we find the following in the same book: "Cheap Harvest Drink.—To those engaged in harvesting and other occupations tending to create thirst, we recommend the following preparation, which makes a very palatable and healthful drink in hot weather: Take 12 gallons of water, 20 pounds of honey, and 6 eggs, using the whites only. Let these boil one hour; then add cinnamon, ginger, cloves, mace, and a little rosemary. When cold, add one spoonful of yeast from the brewer. Stir it well, and in 24 hours it will be good."—WILL M. BARNUM.

The first edition of "Honey as Food and Medicine" contained a large variety of recipes for making honey-wines, mead and metheglin—as used in the various countries of Europe. The later editions contain only the recipes for harvest drink and metheglin quoted by Mr. Barnum, and the following recipe for making "wine mead:" "To make mead, not inferior to the best foreign wines, put three pounds of the finest honey to two gallons of water, two lemon peels to each gallon; boil it one-half hour, and skim well. Put in the lemon peel while boiling. Work this mixture with yeast, and then put it in a vessel to stand five or six months; then bottle for use. If you choose to keep it several years, add four pounds of honey to a gallon of water." As all good people should be temperate in their habits and life, they are not expected to use intoxicating drinks, and this will account for the omission of the recipes before mentioned. In answering the question therefore, as to "how to make," no one should imagine that it is advice to manufacture or use any intoxicating drinks.—THE EDITOR.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

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and Gleanings in Bee-Culture	2 00	1 75
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Canadian Bee Journal	2 00	1 80
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CORRESPONDENCE.

HIVES.

Large vs. Small Brood-Chambers Considered.

Written for the American Bee Journal

BY W. Z. HUTCHINSON.

I desire to reply here, instead of in the *Review*, to the argument of Mr. Dadant in favor of large brood-chambers, on page 311, as I wish *all* the readers of the AMERICAN BEE JOURNAL to hear both sides of the discussion.

It is true that I declined to publish and article from our Illinois friend, but I was not actuated by any motives of partiality. I could, of course, tell *why* it was refused; but while I sincerely desire to stand well in the opinions of the AMERICAN BEE JOURNAL and its readers, I prefer to be misjudged by those who cannot take my simple word in the matter, rather than still further wound the feelings of so honorable an opponent. I will say this much, however, that the article which appeared on page 311 of the BEE JOURNAL would have been accepted with pleasure.

To review a book containing so much valuable information as is to be found in "Langstroth on the Honey-Bee, Revised by Dadant," and attempt to give, in a few short columns, the gist of the volume, at the same time criticising, praising or condemning, as the occasion seems to require, is a very difficult task. Others may be better fitted than myself for this work, but I *do* strive, and that most earnestly, to do the author no injustice.

Mr. Dadant thinks that I did not do quite the fair thing by not giving the *reasons* why he preferred large brood-chambers. He gives a paragraph from which I quoted a sentence. He thinks that it would have been better if I had quoted the whole paragraph, which reads as follows:

> 309. As the harvest of honey is always in proportion to the number of bees in the hive, and as a large colony requires no more labor from the apiarist than a small one, the hive should afford the queen sufficient space to deposit all the eggs which she is able to lay during 21 days, the average time for an egg to be transformed into a worker. Besides, it should contain a certain amount of food, honey and pollen.

Let us investigate this idea that "a large colony requires no more labor from the apiarist than a small one." I believe that the *forte* of my opponent is that of producing extracted honey; can he extract the honey from a large colony with as little labor as from a small one?

The advocates of large hives assert that their bees are housed more cheaply in large hives. I say *no*. Large hives are not only more expensive in proportion to their size, but the width of lumber needed for their construction, is more expensive. But I think that there is little difference, so far as expense for hives is concerned.

With large hives, and the use of the extractor, I know that swarming can be well-nigh overcome; but not so in producing comb honey.

In speaking of large hives, Mr. Dadant says: "This space must allow of contraction, according to the needs of the colony, by what is called 'movable division-boards.'" He still further says: "Besides, I could add that while we can reduce the capacity of our large hive, he cannot increase the size of his small one." Beg pardon, Mr. Dadant, but the small hive that *I* use and prefer, can be at once the smallest or the largest hive, simply by adding or removing sectional parts.

But this is not exactly the point under discussion. Mr. Dadant advocates, and uses, a large brood-chamber—one so large that the most prolific queen will never be cramped for room, so large that some of the queens do not fill them with brood, and the space at the sides must be filled with combs of honey, or else the brood-nest must be contracted with division-boards; while *I* advocate and use a brood-chamber that is no larger than an ordinary prolific queen will keep full of brood in the forepart of the season. We are discussing which *size* of brood-chamber is the better; and *not* which could change over to the *other* size the most readily, although I should be willing to discuss the latter point.

I am still in doubt as to Mr. Dadant's exact views in regard to honey-boards. He quotes a paragraph in which he admits that a *skeleton* honey-board is sometimes used in comb-honey production; but there is another paragraph in which he says: "331. The *movable honey-board*, between the brood-chamber and the upper stories, has also been discarded of late years." Dr. Miller suggests that Mr. Dadant has reference, in paragraph 331, to the old obsolete honey-board, that was really a *board* having holes bored through it, and upon which honey-*boxes* were placed. I shall be glad to know that Mr. Dadant does not condemn the modern, slatted, break-joint bee-space inventions.

In reference to patents, Mr. Dadant thinks that I ought to have published the paragraph in which he gave his reasons for cautioning bee-keepers against investing in patent hives. Here is the paragraph:

> 358. More than 800 patents on bee-hives and implements have been issued in the United States since January, 1873. Not ten of these have proved to be of any use to bee-keepers. The mention of this fact will suffice to show the small value of these 790 patents, and the loss incurred by those who have bought them before they were able to judge of their merits.

During this time that 800 apiarian hives and implements have been invented and patented, many others have been invented that were *not* patented. I fail to recognize their superiority over the patented articles. The patenting of an article does not add, neither does it detract, one iota of usefulness.

My opponent calls attention to the point that many have been led to invest in patents upon worthless articles. True; but the pittance paid for a patent is a mere drop in the ocean, compared to the mistakes of adopting an undesirable hive; and the mistakes will be none the less grievous, be the hive unpatented.

Mr. Dadant complains because I did not mention that he had arrived at his conclusions in regard to the best size for brood-chambers, after an experience of twenty years with hives of different sizes. Of course it would have been perfectly proper to have done so, but then I should have been in duty bound to have mentioned others who had experimented in a similar manner and arrived at *opposite* conclusions. Instead of simply giving our experiences, let us strive to learn the *reason* for things.

I cannot close without thanking Mr. Newman for his kind editorial on page 307, upon this discussion and the preceding circumstances. I feel like saying "amen" to the whole of it. Until I commenced publishing the *Review*, I did not fully realize the many difficulties and delicate tasks that fall to an editor. Not the least of these is that of declining articles, especially when they come from prominent personages. I have several times thought it necessary to do this, but never without wishing that I might, for the time being, change places; and I sincerely hope that I have lost the friendship of no one by doing what I believe is for the best.

Flint, Mich.

TEXAS.

Report of the Texas State Bee-Keepers' Convention.

Written for the American Bee Journal

BY REV. J. N. HUNTER.

On May 1, 1889, the eleventh annual session of the Texas State Bee-Keepers' Association was held at Vice-President W. R. Graham's apiary, at Green-

ville, in connection with a May-day picnic.

At 11 o'clock a.m. an invocation was offered by Rev. W. K. Duff, of Greenville, and a speech of welcome was then tendered by Hon. J. S. Sherrill.

Dr. W. K. Marshall, of Marshall, Texas, was introduced and delivered an excellent address on the happy surroundings of the day, and the moral education of the rising generation. The Doctor's speech was a splendid effort, and we trust that it made a deep impression. A sumptuous repast was spread at noon, to which all did ample justice.

After dinner, at 2 p.m., the convention was called to order by Vice-President W. R. Graham. Judge W. H. Andrews, of McKinney, Texas, was introduced, and gave a lecture on the following points in bee-culture: Importance of bee-culture; implements of bee-culture; hives, frames, etc.; bee-keeping as a specialty; uncertainty; honey-plants of Texas; races of bees—the best and most beautiful; handling of bees; and their propensity to sting.

Dr. W. K. Marshall then drew a graphic contrast of modern bee-keeping with the past methods, now becoming obsolete.

The convention then adjourned to meet the next morning at 9 o'clock.

SECOND DAY.

The convention met on Thursday, May 2, at 9 a.m., and called to order by Vice-President W. R. Graham.

Judge Andrews was introduced, and continued his lecture on bee-culture; on rearing and introducing queens. The lectures were of vital interest to bee-keepers.

On motion, the officers of the Association were elected for the ensuing year, as follows: W. R. Graham, of Greenville, President; J. P. Caldwell, of San Marcos, Vice-President; J. N. Hunter, of Celeste, Secretary; and G. H. Wilson, of McKinney, Treasurer.

Greenville was selected as the place of the next meeting.

J. N. Hunter, *Sec.*

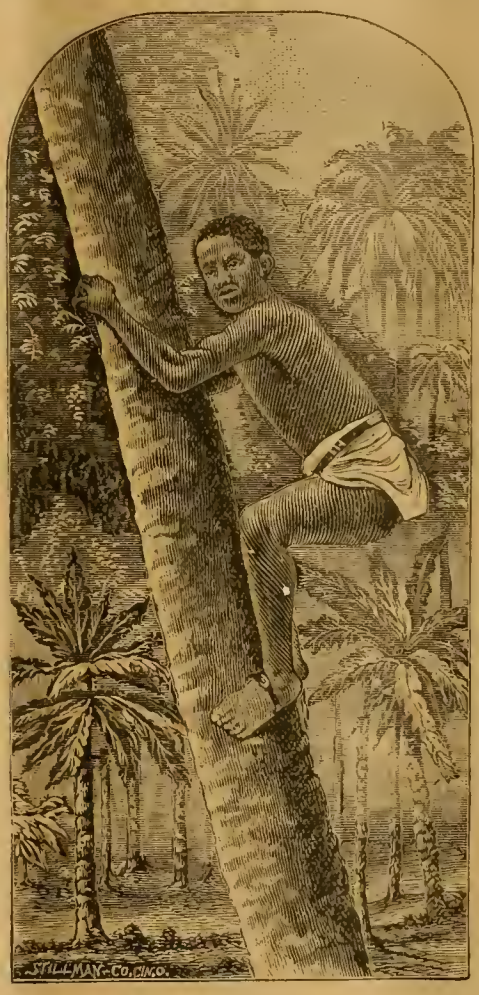
APIS DORSATA.

Climbing Trees to Get the Large Bees of Java.

Written for the Australasian Bee Journal

BY T. J. MULVANY.

Confining our attention for the present (as we have done in preceding papers in regard to South America and to Africa) to that portion of the tropical zone which extends abou 10° north and south of the equator, and tracing this belt eastward from the coast of Africa, it will be found to take in, first, the island Ceylon and the extreme southern part of India proper, and next, the so-called "East India Islands" in the Malay Archipelago; then passing by the northern extremity of Australia to New Guinea, and to the least important of the island groups in the Pacific Ocean. North of this narrow belt lie those districts of Arabia, India, and Eastern Asia, which were amongst the earliest inhabited parts of the globe, and into which the honey-bee had found its way, and where the use of honey and the traffic in both honey and beeswax seem to have been established long before the earliest pages of history were written.



Climbing After Apis Dorsata.

The Egyptian bee (*Apis fasciata* of Latrielle) appears to be the variety which extended itself most extensively eastwards, through Arabia, Central Asia, north of the Himalayas, and into China. The peninsula of India proper, south of the Himalayas, is said by Dr. Gerstaecker to possess three indigenous species of the genus apis, named by Latrielle *Apis indica*, *A. sirialis*, and *A. dorsata*; but a closer inquiry seems to indicate that these are not separate species, but only varieties of the *Apis mellifica*. I do not know if this point is as yet quite settled to the satisfaction of scientific men; but at all events, the *Apis dorsata*, of which we hear most in Southern India, in Ceylon, and in the eastern islands, is a very remarkable insect, and seems to differ more in size, character and habits from the European honey-bee, than any other variety we have heard of.

It is now some eight or nine years since Mr. D. A. Jones, of Canada, took steps to ascertian the practicability, or the reverse, of importing the East India variety of the honey-bee. Mr. Benton, who was sent out by him to Ceylon, in his first report wrote: "*Apis dorsata* is a wonderful bee, whether it can be domesticated or not. It builds in the open air on branches, often making combs six feet long: and I have good authority for saying that *thirty natives have each taken a load of*

honey from one tree." In 1883 the Indian Government published the result of investigations that had been going on for some years in all parts of India, in connection with the popular treatment of bees in that country. From this source we learn that the chief honey district in Southern India is about Coorg and the Wynaad near the Neilgherry Hills, which is about the nearest part of continental India to Ceylon, where Mr. Benton met the *Apis dorsata.*

In Coorg, it is said, "the wild bees build their combs in the trees, and as many as a hundred combs are occasionally found in a single tree. An average of 8 pounds of honey is obtained from each comb in this district, and the bees are driven out by smoking torches applied to their nests." One case is mentioned of a "large mango tree, some 20 feet in girth, standing on the boundary between Wynaad and Mysore, where the natives in each district exercise the right of collecting the honey from the as far as I know, without success up to the present.

Mr. A. R. Wallace, in his work entitled "The Malay Archipelago," published in 1868, mentions bees, honey, and beeswax as met with, especially in the great island of Borneo, in Celebes, and in Timor. They are no doubt common in all, or nearly all the islands of this group, though not specially mentioned, the principal objects of Mr. Wallace's pursuit having been the birds of paradise and other gorgeously feathered denizens of that interesting region.

At Maros, in the Celebes islands, he notes, "the flies and bees were abundant, and of these I daily obtained new and interesting species;" but he does not describe the species or varieties of bees met with. However, when at Timor, he speaks, as we shall see further on, of the *Apis dorsata*, and in the following extract, the manner in which the honey-bee of Borneo is described, leads to the conclusion that it is the same as at Timor. After describing the many uses to which the bamboo cane is applied in Borneo—the building of light suspension bridges across rivers, etc.—he says :—

The Manner in which Apis Dorsata Build their Combs.

branches overhanging their own territory." These bees would appear to be of the same variety as those found in Ceylon, but unfortunately no particulars are given as to their size, color, the size of their combs or its separate cells, nor about the separation into different "nests" or colonies of the large number of combs found in one tree.

One of the reporters, Mr. Morgan, Deputy Conservator of Forests in the Wynaad, comes to the conclusion that "only one kind of bee, the *Apis indica*, is capable of domestication, and that only in hilly districts, not on the plains;" but he does not say why, nor give any special description of this variety. A very large sort of bee, which they call "large cliff bees" (building in cliffs and under ledges of rocks), are represented as "so ferocious in habit, and furnished with such deadly stings, as to be dangerous to both men and beasts coming within their neighborhood." Whether these dangerous insects are *A. indica* or *A. dorsata*, or some other sort, does not appear. Mr. Jones, of Canada, has since made personal acquaintance with the *A. dorsata* in Ceylon, and endeavored to import some to America, but

One of the most striking uses to which the bamboo is applied by the Dyaks, is to assist them in climbing lofty trees, by driving in pegs in the way I have already described at page 55. This method is constantly used in order to obtain wax, which is one of the most valuable products of the country. The honey-bee of Borneo very generally hangs its combs under the branches of the Tappan, a tree which towers above all others in the forest, and whose smooth cylindrical trunk often rises a hundred feet without a branch. The Dyaks climb these lofty trees at night, building up their bamboo ladder as they go, and bringing down gigantic honey-combs. These furnish them with a delicious feast of honey and young bees, besides the wax, which they sell to traders, and with the proceeds buy the much-coveted brass wire, ear-rings, and gold-edged handkerchiefs, with which they love to decorate themselves.

Thin, long jointed bamboos form the Dyaks' only water-vessels, and a dozen of these stand in the corner of every house. They are clean, light, and easily carried, and are in many ways superior to earthen vessels for the purpose....Salted fruit, or fish, sugar, vinegar, and honey are preserved in them instead of jars or bottles. At Timor also, describing a photograph given of two natives, he remarks, "The covered bamboos probably contain honey for sale."

At Timor he gives the following account of the manner in which the natives climb the tall trees there and take the honey-combs of the *Apis dorsata*. The description is so graphic and interesting, especially to the different means adopted by these natives as compared with those of Borneo, climbing the tall smooth trees, that I am induced to give it at full length.

The beeswax is a still more important and valuable product, formed by the wild bees (*Apis dorsata*), which build huge honey-combs, suspended in the open air from the underside of the lofty branches of the highest trees. These are of a semi-circular form, and often 3 to 4 feet in diameter. I once saw the natives take a bees' nest, and a very interesting sight it was. In the valley where I used to collect insects, I one day saw three or four Timorese men and boys under a high tree, and looking up, saw on a very lofty horizontal branch three large bees' combs.

The tree was straight and smooth—barked and without a branch, till at 70 or 80 feet from the ground it gave out the limb which the bees had chosen for their home. As the men were evidently looking after the bees, I waited to watch their operations. One of them first produced a long piece of wood, apparently the stem of a small tree or creeper, which he had brought with him, and began splitting it through in several directions, which showed it was tough and stringy. He then wrapped it in palm leaves, which were secured by twisting a slender creeper around them. He then fastened his cloth tightly around his loins, and producing another cloth wrapped it around his head, neck and body, and tied it firmly around his neck, leaving his face, arms, and legs completely bare. Slung to his girdle he carried a long, thin coil of rope; and while he had been making these preparations one of his companions had cut a strong creeper or bush-rope 8 or 10 yards long, to one end of which the wood-torch was fastened, and lighted at the bottom, emitting a steady stream of smoke. Just above the torch a chopping-knife was fastened by a short cord.

The bee-hunter now took hold of the bush-rope just above the torch, and passed the other end around the trunk of the tree, holding one end in each hand. Jerking it up the tree a little above his head, he set his foot against the trunk, and leaning back began to walk up it. It was wonderful to see the skill with which he took advantage of the slightest irregularities of the bark or obliquity of the stem to aid his assent, jerking the stiff creeper a few feet higher when he had found a firm hold for his bare feet. It almost made me giddy to look at him as he rapidly got up—30, 40, 50 feet above the ground; and I kept wondering how he could possibly mount the next few feet of straight smooth bark. Still, however, he kept on with as much coolness and apparent certainty as if he were going up a ladder, till he got within 10 or 15 feet of the bees. Then he stopped a moment, and took care to swing the torch (which hung just at his feet) a little towards these dangerous insects, so as to send up the stream of smoke between him and them. Still going on, in a minute more he brought himself under the limb, and in a manner quite unintelligible to me, seeing that both hands were occupied in supporting himself by the creeper, managed to get upon it.

By this time the bees began to be alarmed, and formed a dense buzzing swarm just over him, but he brought the torch up closer to him, and cooly brushed away those that settled on his arms and legs. Then stretching himself along the limb, he crept towards the nearest comb and swung the torch just under it. The moment the smoke touched

it, its color changed in a most curious manner from black to white, the myriads of bees that had covered it flying off and forming a dense cloud above and around.

The man then lay at full length along the limb, and brushed off the remaining bees with his hand, and then drawing his knife cut off the comb at one slice close to the tree, and attaching the thin cord to it, let it down to his companion below. He was all this time enveloped in a crowd of angry bees, and how he bore their stings so coolly, and went on with his work at that dizzy height so deliberately, was more than I could understand. The bees were evidently not stupefied by the smoke, or driven away far by it, and it was impossible that the small stream from the torch could protect his whole body when at work. There were three other combs on the same tree, and all were successfully taken, and furnished the whole party with a luscious feast of honey and young bees, as well as a valuable lot of wax.

After two of the combs had been let down, the bees became rather numerous below, flying about wildly, and stinging viciously. Several got about me, and I was soon stung, and had to run away, beating them off with my net, and capturing them for specimens. Several of them followed me for at least half a mile, getting into my hair, and persecuting me most pertinaciously, so that I was more astonished than ever at the immunity of the natives.

I am inclined to think that slow and deliberate motions, and no attempt at escape, are perhaps the best safeguards. A bee settling on a passive native probably behaves as it would on a tree or other inanimate substance, which it does not attempt to sting. Still they must often suffer, but they are used to the pain, and learn to bear it impassively, as without doing so no man could be a bee-hunter.

Timor is nearly the most eastern of the East India islands, and that nearest to the northwest coast of Australia, from which it is, however, more than 300 miles distant. The *Apis dorsata* never made its way across that sea, as neither it nor any of the European varieties of the *Apis melifica* was known in Australia until the latter were introduced by the white settlers. It is well known that there is an extraordinary and very marked difference between both the fauna and flora of continental Asia and those of Australasia; and naturalists point out, as the abrupt boundary between the two, a narrow strip of deep water which divides the shallow seas on each side of a line passing between the islands of Bali and Lombock, and through the Macassar Straits, between Borneo and Celebes.

Some of the western species of birds, and some insects—the *Apis dorsata* among the latter—have made their way or been carried to some of the islands east of that line of demarcation, but no further, in a southeasterly direction, than Timor, as above mentioned. As bees are plentiful in Celebes, and there are several large and small islands scattered between it and the great island of New Guinea, which might serve as stages in the eastward spread of the insects, one would expect to find them also in the latter place; but I have not seen any mention of bees or honey in the meagre accounts of New Guinea, which I have chanced to come across. Of the Pacific islands in this equatorial belt, the Caroline, Marshall, Gilbert, Ellice, and Phœnix groups, New Britain, and Solomon Islands, etc., but little is known. They are, no doubt, destitute of any species of the honey-bee.

With regard to the more important and better known groups in the southern tropical region—New Caledonia, New Hebrides, Fiji, Samoa, the Friendly, Cook's, and Society groups, etc., it is greatly to be wished that information on this subject could be collected from parties who may have visited them. In the principal of these islands now inhabited by Europeans, apiculture will, no doubt, have been already introduced to some extent, and it is to be hoped that some among these pioneers of the industry may be readers of the *Australasian Bee Journal*, and may be induced to favor us with the information desired.

TRANSFERRING.

How to Transfer Bees from Box-Hives.

Written for the Orange Judd Farmer

BY JAS. POINDEXTER.

Fastening combs in frames by wrapping strings of wire around, slipping clasps over frames and combs, or running melted wax between the pieces of comb, etc., to hold them in place, have all proven unsatisfactory with me.

The only plan by which I have been entirely successful is by the use of sticks to hold the combs right where I want them. This is an old method, but I will give it as I practice it at the present time. Use two boards the size of the frames, a lot of sticks 1-6 of an inch square and ½ inch longer than the frame is deep, some small annealed wire (copper is best), about the size of an ordinary needle, a straight edge, a knife and a table. Then we are ready to operate.

If the combs are to be taken from a hive with bees in, give the bees a smoking, invert the hive, place another of the same size over it, and rap on the hive a few minutes, when most of the bees will ascend into the empty hive which may then be set to one side. Then take off that side of the hive which is parallel with the combs, cut out the combs, smoking occasionally to drive the remaining bees to the further side. The combs are carefully placed in a box, and taken to a room where the temperature is 60° or upward. On one of the boards above mentioned, place an empty frame. Take one of the largest straight combs, and with the straight-edge cut so as to fit snug in the frame, then fill out the frame with smaller pieces, keeping in view two very important points:

To have the frame filled solid, so there will be no openings between the pieces, and that there are no crooked pieces put in, no matter how small they are cut to avoid it. Lay as many sticks on, extending ⅛-inch above the top, and ⅛-inch below the bottom of the frame, as are necessary to hold the combs firmly in place. Lay the other board directly over the frame and on the sticks. Invert and remove the first board used. Lay on as many sticks as were placed on the other side and even with them. Now with the annealed wire wrap once around the end of the upper stick, then down under the lower one and back twice around the upper. The wire may be cut in pieces of right length before using. After the ends on one side are secured, the others are fastened in like manner.

When combs with brood are transferred, a frame with cloth tacked on is used instead of one of the boards, to prevent the capping of the board from becoming bruised.

When empty combs, and those with little honey are transferred before puting on the sticks, I lay the other transfer board on the combs and frame, lay on the floor, and place a 244-pound weight on all by stepping thereon. This reduces the comb to ⅞-inch, the thickness of my frame, and the proper thickness of worker combs. The bees will strip off the bruised ends of the cells.

If there are not combs sufficient to fill the hive, a division-board is placed in the vacant space until other combs are secured. The hive is then returned, and the bees shaken at the entrance.

The best time for transferring is when there is the least honey and brood in the hive, and when the bees are busy and not inclined to rob. During fruit-bloom and at the commencement of white clover harvest are favorable seasons. If the work is done when the bees are idle and liable to rob, it should be late in the evening, or the hive and bees removed to a room during the operation, and until all the loose honey is cleaned up. The sticks are left on until the combs are thoroughly welded together. I have in a few instances left them on a year without apparent harm to the bees. All the new, straight drone-comb not used as guides in sections, I transfer to frames to be used in hives for extracting. I have a set of drone-combs used for 14 years.

BEE-HIVES.

My "Ideal" Hive is the Coming One.

Written for the American Bee Journal

BY J. W. TEFFT.

I take pride in being a good bee-keeper, and knowing my trade thoroughly. I will give some of my ideas of what a perfect bee-hive should be. The subject-matter may not be of interest, and then again it may be of great interest. If no one receives instruction from reading it, I certainly will have the pleasure of amusing them.

In the year 1883 I received much pleasure, information and instruction in examining a bee-hive that was imported from Rodheim, Germany, in 1830; also in the book giving a history and description of the hive, by the inventor, Rev. J. L. Christ, published at Rodheim in 1783, over 100 years ago. The illustrations gave me a subject for thought. Previous to this I had been using the Langstroth and Quinby hives, as well as reading their books, and other good bee-literature.

Comparing the three books and the three hives, and carefully comparing the fine points in the hives and books, I was impressed with the similarity; then I conceived that the ideas of the three men were of the same intent, but had worked up their hives at opposite ends. This impressed me with the idea that if the three hives could be combined into one solid one, some serious obstacles could be removed, and would be of advantage. These ideas were carried out in 1875, and introduced to parties in New York city; and in 1876 they brought the hive out under the name of "Chaff Eclectic." When I saw the hive I was wofully disappointed, for they had ruined my expectations by substituting ideas of their own, and it was not much of any advance over the Langstroth and Quinby hives.

To say the least, I was far from being contented to let the very best thoughts of the three great inventors remain in that shape. I concluded to take the matter in my own hands, and arrange things as they should be. I commenced ten years ago, striking out old things and substituting new ones—my idea being to work out of the ruts. The ten years have been employed in experimenting, perfecting and putting things to practical tests, and they have proved beyond a doubt that my convictions were right.

The good features that I desired in a bee-hive were these: The permanent packing, or hollow walls of the ends of the brood-chambers 21 inches wide, from side to side; roomy, for single movable-comb frames, and the movable division-boards; these three things are indispensable, and I saw nothing more that I desired to retain in our modern bee-hive.

I want to see the same advancement in the future bee-hives that we see in our flouring mills, and receive the same results as the roller mill has achieved over the old French burr stone process.

In order to do that, we must have the brood-chambers larger from side to side, with movable division-boards, so that the brood-chambers can be enlarged or contracted at the will of the apiarist, to suit any large or small colony of bees, be they strong or weak, as necessity requires. The ends of the brood-chambers must be hollow-walled, or permanently packed, for the prevention of any sudden changes from heat or cold, or *vice versa;* from interfering with the workings of the bees inside the hive, at any and all seasons of the year.

The bottom-board of the brood-chamber should be double thickness, and tarred paper put between, and nailed fast to the brood-chamber to prevent insects or dampness from the ground passing through, as well as for warmth. The sides, back, and ends should be 11 inches high, and on the outside, near the upper parts, one inch from the upper edges, a ledge should be nailed all around the brood-chambers for strength, and for the middle rim to rest upon.

The middle rim should have no top or bottom, and be 11 inches high. Its functions in connection with the brood-chamber, are numerous, such as securing shade, ventilation, protection from heat, storms and cold; also for its capacity for packing for winter. Bees will not quit the sections when thus protected. Think of it!

The cover should rest in the same manner as the middle rim rests on the brood-chamber, the side of the cover to have 4½ inches rise; where the shell of the hive is thus constructed, its functions is to protect the movable inner hive, such as shade, ventilation, warmth, and numerous other good things.

Ventilation of the Hives.

When the combs over the bees are in working order, and the division-boards in place, a space is found between the shell and the division-boards; the division-boards should be ¼-inch from the bottom-board; and the air as it enters the entrance of the hive will pass under the division-board into the space and out through the four ventilating holes. This keeps the bees quiet, the comb free from moisture, and insures healthy bees, and pure honey. The fetid air passes away into the packing in winter, and into space in the summer. This is a certain remedy to prevent bee-diarrhea.

Making Hives.

The division-boards, frames and middle rim should part flush with the top of the brood-chambers, to insure every manipulation. The cover should part flush with the top of the surplus chamber. The brood-chamber, middle rim, top, and surplus chamber and stand, are all to be made from ½-inch lumber, planed on both sides, and must be strong, durable, light and suitable for any climate or out-door wintering, as well as a summer hive for the North as well as the tropics. We want a bee-hive for business, to do all that has ever been done, and a great deal more. We do not know the working capacity of bees yet.

The hive must be so constructed that any and all kinds of manipulation can be practiced, as well as to take any and all kinds of surplus chambers; to practice the tiering-up plan as others; and secure comb honey or extracted; but we want, if possible, to avoid **T**-tin rests and metal corners on frames, and adopt something new, so that we can remove sections as fast as finished, more than one at a time, before the whole case is finished, and have the surplus case so arranged for the lateral movement that a frame of sections can be removed, and an empty frame of sections inserted in its place, and not disfigure the cappings; thus do away with wide frames. This, I think, would enable us to get more finished comb honey at the end of the season. Then the comb should be attached to all parts of the inside sections, and nearly free from wax, bee-glue or propolis. By this arrangement one can get all the surplus honey in sections, if he does not want to use the extractor.

The bee-hive proper is to be inside the shell, all parts of it movable, and in separate pieces, and all interchangable to any hive about the apiary. The frames and division-boards must be flush with the top of the brood-chamber, and rest ¼-inch from the bottom-boards of the hive, for obvious reasons, but I will only mention a few, viz:

When the hive is adjusted, and the bees at work, the space between the inside hive and the shell, form an air space, and young bees will occupy and be out of the way of the workers, and not hang out on the front of the hive, to be run over by working bees. They will be protected from storms also; then at night, when the workers are all at home, I have seen this space crowded with bees, and also on rainy, cold days. To feed bees a better con-

trivance cannot be imagined than this space. For winter, this space is splendid for packing with chaff, peat, moss, or forest leaves, or any absorbent material. Then one can ship bees the world over. Such a frame of comb full of honey the extractor cannot injure in the least.

Then again, they should be constructed so that they can be used the same as the Langstroth frame at all times. This frame must be reversible, so that it can be used for all known methods—an all-purpose frame, if you like. The same frame, when empty of brood-combs, is to be used to hold two tiers of sections. The inside dimensions of the frame should be constructed on the metrical measurement, in order that the frame will take sections, say 4 two-pound, 6 one-pound, 8 ¾-pound, 12 half-pound, 24 quarter-pound; and be able to run all sizes of sections at once, or separate size, and extracted, just as one wishes. Thus we have a frame that is universal in its application, as well as interchangable—side-storing, tiering-up, etc.

The frame should be cheap, simple, and effective, universal for all purposes, and in harmony with the instincts of the bees; so that they can turn out finished honey remarkably fast. These frames require no bracing, wedging, or thumb-screws; a single one will stand alone, and can be put down anywhere, and not crush bees or combs. Bees can be brushed or shaken off readily, and no fear of smashing things.

The bees cannot glue these frames fast to the hive, and it requires no machine to loosen them. There is much more about the frames, but I will now speak of separators, which should be thin, and the full size of the outside brood-frame, and reversible.

The surplus chambers should be constructed with the view to use them for other purposes, than merely to store comb in; then if the swarm should come out unexpectedly, one can put frames of foundation in, and hive his bees into it; and so that they can be used two or six stories high, if desired; or to ship nuclei in them. A hive thus constructed and adjusted is storm-proof, winter-proof, summer-proof, as well as at all times ventilated and shaded.

The frames of a hive must be made of wood, and all frames alike. They must answer for brood-combs, and for holding sections; one inch and a half wide at the ends, for the purpose of spacing themselves; recessed from the four corners on both sides, so that the top-bars, bottom-bars, and end-bars will be 1⅛ inches wide, for passage-ways for the bees, and the natural thickness of comb.

The top-bar is to be slit from end to end, through the centre, for the purpose of inserting foundation quickly; to thus avoid wired frames, wired foundation, melted wax, and other time-provoking experiences. Then when a frame full of foundation is placed in the brood-nest, the combs will become of an even thickness, no varying, crooked, warping, or sagging, broken combs; and no break-down, if the foundation is all wax, and not adulterated.

The top and bottom bars must be the same, so that the combs will be attached to all parts of the inside of the frame, and to be impossible to tell which is the right side up. Then when placed in the hive, 8 or 12 of them, and the division-board in place, one can move or ship a colony of bees, and the frames will not swing in at the bottom like a pendulum, and crush the bees or combs. They will be as firm as the hive itself, when a wedge is inserted between the division-boards and the shell.

As a surplus chamber they excel, and the manner of construction is too simple to speak of. They have no bottom or top, both sides are movable, which allows the frames to be taken out laterally. They can be made to hold 3, 4, 6, 8, 10, 12 or 14 frames, but the 6 frame is the best, that holds 36 one-pound sections, or 144 quarters. Then one frame of finished honey can be removed at will, and an empty one inserted, or one side-storing frame of sections can be lifted, bees and all, to fill a surplus case, and not disturb the working, but rather increase the honey and retard swarming by the interchange, etc.

These surplus chambers have no intermediate honey-board or zinc queen-excluder between the honey-boards, therefore there is an unbroken passage-way for the bees from the entrance of the hive to the top of the sections. The section-frames and brood-frames are just bee-space apart. There are no brace-combs; the surplus chamber can be lifted at any time without removing a frame, which makes it very easy to get at the brood. I have no **T** tins or other hinderances; it is so simple that any one can manage it.

My sections have four open sides, and I use 6 one-pound sections in each frame, two tiers high, and so arranged that one frame at a time, as the honey is nearing completion, can be reversed if needed in order to have plump full sections, and the comb attached to all parts.

The 4 open-side sections have a charm for me, as the bees are not divided off, but they are all together in a mass, and they seem to work better. Why it is so I do not know, but they do, all the same. I like this style of section very much, as it avoids the bad corners and accomplishes the same results. I wonder if any one has tested this section: if so, I would like to learn how they can be made in one piece, or 4-piece dovetailed. They pack in a shipping-case better than the other 4-open-side sections with paste-board between the rows.

Should we want the bees early to work in the supers, by these interchanging frames and parts, we can put them up by raising the side-storing sections, bees and all; also at times a frame of ripe brood, bees and all, to start them up; and thus we will control swarming, and get the bees up at work in the sections long before one can possibly do it by the old method of waiting for the spirit to move the bees up in the sections.

I want to and do take away finished sections before my neighbor has his bees in the sections. We want bees to work all the time gathering during the season; and to be able to say to those men—who, after trying all plans for non-swarming hives given, with no success, have settled down in the old rut, and have come to the conclusion that such a thing does not exist when working for comb honey, and even if it did, they doubt if as large a yield of honey could be obtained as by the use of non-swarming hives—that swarming can be controlled at will; and that one colony of bees will produce surplus honey as much as they possibly can by the use of three small single-walled swarming hives, and that at less expense, time, and labor, and more simply.

Wintering bees should be done on the summer stands; the brood-combs should be reduced to four frames, the surplus chamber be placed above, holding four solid frames of honey. Bees do not look or go sidewise for their stores, when clustered, but only up, there the honey being above the unbroken continuous passage-ways.

When thus adjusted, and the peet, moss, or forest leaves are packed solid into the space formed by the inside hive and outside shell, bees live, they "hold the fort," if properly attended to in time; and the time to commence is as soon as they are unpacked in the spring.

The space between the division-board and the outer walls can be filled with packing and absorbents of moisture, which keeps the combs clean and free from mildew.

With such a constructed hive, we accomplish all that has been done, or is being done. The bees are at all times comfortable, and are ready for business a month sooner than my neighbor's bees in the spring. I never,

in one of these hives, had a case of spring dwindling, nor bees diseased in any way so far. I feed no sugar, nor remove any pollen.

Again, those reversible frames pay me, if used for no other purpose but to winter bees ; for if the brood-frames contain honey, place the honey part up, and in surplus chambers reverse the honey part down, to match the one in the brood-chamber ; then the honey parts of the eight frames will be together, one above the other.

The whole hive is constructed with the view of giving the queen full power of reproduction, and hereby hangs the whole "law and gospel" in bee-keeping. The mother-bee must have room as fast as she wants it ; we must be able to give her that room, and if not able, we lose control over the bees, and swarm they will. We must be able to make our increase as necessity requires, ourselves, and not be at the mercy of the bees, to do it when not necessary.

Keep the bees in one strong colony until after the honey harvest ; keep the brood-frames full of brood, and no honey in them during the harvest ; by so doing the bees have no place to store honey but in the sections. Make your aim, and make the bees work for you in one colony, and do as much as your neighbor's bees do in four or even five single-walled, small hives.

My object is to make a chaff hive, and yet not a chaff hive ; and to part flush with the top of the brood-frames, so that I can get at things, and push things.

When those who manufacture bee-hives take all these points into consideration, and unite them with the best points in the hives of Rev. J. L. Christ, Rev. L. L. Langstroth, and Moses Quinby, we will have the next great invention in apiculture, of great economic value, and one that is needed as well as now called for by honey-producers, queen-breeders, etc. It will be as revolutionary in its effects as the application of the movable-comb frame was forty years ago. I do not make or sell hives, or any other kind of bee-supplies.

Collamer, N. Y.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Dec. 4, 6.—International, at Brantford, Ont., Canada. R. F. Holtermann, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

SELECTIONS FROM OUR LETTER BOX

Queen-Rearing.—Newton Johnson, Ficklin, Ills., says :

I have received the book, "Scientific Queen-Rearing," by Mr. G. M. Doolittle. It is intensely interesting, besides being very profitable.

Destroying Drones and Brood.—R. R. Stokesberry, Clinton, Ind., on May 16, 1889, says :

Last fall I had 57 colonies in good condition, except one that was queenless, which died during the winter. All the rest came out in good condition, and built up fast, until two or three weeks ago when the cold, dry weather checked them, and they began killing off the drones and pulling out young brood. It seems to me that we are going to have another failure to record for this year, which, with the past two, is very discouraging. If I knew of a good location for bees I would be tempted to move to it.

Early Spring, etc.—C. Theilmann, Theilmanton, Minn., on May 17, 1889, writes :

The Doolittle book on "Scientific Queen-Rearing" is very interesting, and contains many new ideas not found in other bee-books or periodicals ; and they come from one of our most (if not *the* most) and best experienced bee-masters in America. We had rather bad weather for bees to make their living for quite awhile ; they are getting plenty of pollen, but very little honey, and have to be fed. The colonies are strong in bees. We had some glorious rains lately, which were badly needed. Spring crops look remarkably good after the rains, and corn is coming up—the rows can be seen in some fields. This is earlier by two weeks here than ever before.

Early Swarming, etc.—J. M. Peck, Wyoming, Wis., on May 19, 1889, writes :

I see reports of early swarms from Ohio, Indiana, and other localities, but I want to say that Wisconsin is not behind the times, if we are much further north. On May 4 I had a large swarm, and I have had 7 swarms so far. I would have had many more, but it has been very dry for the last two weeks, and with the exception of the last four days, it has rained most of the time. Bees did nothing the past week but kill off drones ; but everything bids fair for a good honey-flow now. White clover is just commencing to bloom. My bees are in fine condition, and I am expecting swarms every day. My report for 1888 is as follows : I commenced the season with 15 colonies, increased them to 47, and took 2,500 pounds of extracted honey, and 300 pounds of comb honey in one-pound sections. I also had 400 natural combs built in brood-frames.

Bees Dwindling and Dying.—J. A. Bence, Hamrick, Ind., on May 16, 1889, writes :

On page 283 of the AMERICAN BEE JOURNAL for 1888, Mr. R. M. Rawlins, of Arkansas, exactly describes my situation in regard to bees dwindling and dying. Some of mine died that way last season. They ceased dying in the fall, and wintered all right. They went to work on fruit-bloom, and seemed to do well, but now there is but little for them to get, and some of the colonies are dying off very rapidly. Their abdomens are much swollen, and full of a thick, yellowish matter. They will lie struggling several days on the ground before they die. I have watched ever since Mr. R's article was published, hoping that some one would give the cause and cure. Will some one please do so ?

Honey and Beeswax Market.

DETROIT.

HONEY.—Best white 1-lbs., 14@15c. Market is dull and lower, but not overstocked. Demand slow.
BEESWAX.—22@23c.
Apr. 30. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—We quote: White 1-lbs. 15@16c.; dark, 10@12c.; California white 2-lbs., 11@12c.; amber, 10@11c. Extracted, white, 7@8c.; dark, 5@6c. Our market is in good condition for the new crop.
BEESWAX.—20c.
May 11. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Extracted, in barrels, 6½@6¾. Excellent demand for clear, bright in barrels. Dark, 5¾@6c.
BEESWAX.—Scarce at 23c. for prime.
May 22. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—Market is bare of comb. We have not seen honey cleaned out so well for several years. As to extracted, there is no white clover, basswood or buckwheat in this market. New Southern honey is arriving freely, and brings from 65@70c. per gallon. New Florida orange-bloom honey brings from 7½@8c. per lb.
BEESWAX.—Scarce, at 26½@27c. for good.
HILDRETH BROS. & SEGELKEN.
May 24. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote : Best white clover 1-pounds, 18@20c.; best 2-lbs., 17@18c. Extracted, 8@9c.
Sales have been checked a little on account of maple sugar and syrup being so plentiful. Sales of honey are very slow.
May 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 11@16c. Demand is fair. Arrivals are plentiful of new comb and extracted honey from the Southern States, where the season had a most prosperous beginning.
BEESWAX.—Demand is good—20@24c. per lb. for good to choice yellow, on arrival.
May 21. C. F. MUTH & SON, Freeman & Central Av.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

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Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

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Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

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This magnificent Art Portfolio is in size just 11x14 inches, and besides a picture of Gustav Doré, the great French Artist, it contains the following beautiful engravings: Expulsion from the Garden of Eden—Entering the Ark—Noah Cursing Ham—Samson and Delilah—Ruth and Boaz—Death of Saul—The Judgment of Solomon—Daniel in the Lion's Den—Daniel Confounding the Priests of Baal—The Nativity—Christ Healing the Sick—Sermon on the Mount—The Disciples Plucking Corn on the Sabbath—Jesus Walking on the Water—The Agony in the Garden—Death of the Pale Horse. Seventeen handsome full page plates under one cover.

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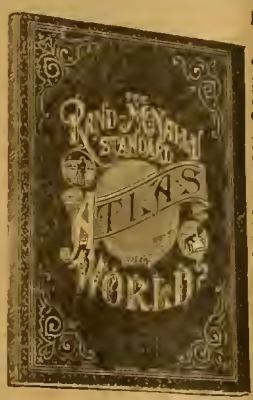

This ATLAS contains large scale Maps of every country and civil division upon the face of the Globe.

It is beautifully illustrated with colored diagrams, showing the wealth, the debt, the civil condition of the people, chief productions, the manufactures and the commerce, religious sects, etc., and a superb line of engravings of historical interest and value, together with many new and desirable features which are expressly gotten up for this work—among which will be found a concise history of each State.

Price, in best English cloth binding (size, closed, 11x14 inches; opened, 22x14 inches), $4.50.

Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages).....	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Simmins' Non-Swarming System, and the AMERICAN BEE JOURNAL for one year, for $1.25. The subscription to the BEE JOURNAL may begin now.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Advertisements.

FOR SALE.—Good Second-Hand Apiarian Articles, such as Hives, Supers, 1-Pound Seconds nailed, and Wired Combs. For prices write to, F. H. BROWNING,
22A1t DUNDEE, Kane Co., ILLS.
Mention the American Bee Journal.

ITALIAN Queens, Tested, $1.25.; Untested, 75c., 3 for $2. Circular of Bee-Supplies, &c. *free.* JNO. NEBEL & SON, High Hill, Mo.
20Atf

WOOD'S ITALIAN QUEENS.

I WILL now ship by return mail, **Selected Tested Italian Queens**, of 1888 rearing, for $2 each. These are my finest Queens, and are thoroughly tested, and are suitable for Mother-Bees. After June 1st, **Warranted Queens**, 75 cts. each; or $8 per dozen. Safe arrival guaranteed. If you want good Queens purely-mated, without delay, send me your order. None but Italians. **3-frame Nuclei**, in the Langstroth or Cary frames, with good Queens, $3 each. Address,

JAS. F. WOOD,
22A2t NORTH PRESCOTT, MASS.
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ADVANCE IN PRICE
OF

COMB FOUNDATION

ON and after this day the price of **Comb Foundation** is advanced

5 Cents per Pound,

Both Wholesale and Retail,

on account of the scarcity and consequent enhanced value of Beeswax.

CHAS. DADANT & SON.
THOMAS G. NEWMAN & SON.
May 16, 1889.

SECTIONS by the Bushel.—I am now packing my Sections in bushel boxes—a box worth 15 cts. with every 500 Sections. $3 per M. Other Goods cheap. Send for Price-List, free. W. D. SOPER, Jackson, Mich.
15C3t

WANTED,

AT Plattsmouth, Nebr., to sell 3-frame (size 9¼x17⅝) Nucleus Colonies of ITALIAN BEES, with Queens, at $2.50 each—brood in 2 frames or more—¾ to 1 lb. of Bees. J. M. YOUNG,
21Atf Box 874, PLATTSMOUTH, NEBR.
Mention the American Bee Journal.

GIVEN AWAY,

First-Class One-Piece Sections!

THE above is not true, and is only done to attract attention; but it is true that I am selling the Whitest and Best No. 1 **One-Piece Sections** made—at $3.00 per M; No. 2, $2.00 per M.
Address, J. M. KINZIE,
20A1y ROCHESTER, Oakland Co., MICH.

A New Book on Bees, and Dadant's Comb Foundation. See advertisement in another column.

BEESWAX WANTED.

Beeswax.—We will pay **25 cents** per pound, in Cash, for Yellow Beeswax, delivered here; or **27 cts.** per lb. in exchange for Bee-Keepers' Supplies.

☞ To avoid mistakes, the name of the shipper should always be on each package.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILLS.

1889. Italian Queens. 1889.

SELECT TESTED, in May, $2.50; in June, $2.00; and July 1 to November 1, $1.50.

☞ **Queens Warranted Purely Mated, $1; 6 for $5.**

Will commence shipping the first week in May, and ship as booked.

Make Money Orders payable at Nicholasville.

☞ Send for Circular.

J. T. WILSON,
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Mention the American Bee Journal.

ITALIAN BEES, QUEENS, and EGGS from Light Brahma and Wyandotte Poultry Oae Untested Queen, $1; three for $2. Eggs, $2 for 13. Price-List Free.
Address, H. G. FRAME,
10E13t NORTH MANCHESTER, IND.
Mention the American Bee Journal.

Heddon Hives For Sale.

TO the purchaser of my 29 New Heddon Hives (never used) at $3 each, I will give a New 4-Frame Stanley Automatic Honey-Extractor, worth $20 00, f. o. b.
E. D. KEENEY, ARCADE, N. Y.
10Etf

April 1st. For 60 Days. 1889.

WE have a large stock of **ONE-PIECE SECTIONS** on hand, which are **first-class.** To reduce stock, we will name a very low price on them, in 1,000 or 100,000 lots. Also **Hives, Smokers and Brood-Frames.** Do not fail to tell us what you want, or send for our Price-List. Address,

SMITH & SMITH,
14Etf KENTON, Hardin Co., OHIO.
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which will be WELCOMED in EVERY FAMILY. SEND for a FREE SAMPLE COPY, containing our SPECIAL CASH PREMIUM OFFERS. Address

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Please mention this paper when answering.

B. J. MILLER & CO.,
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BEE-HIVES, ITALIAN QUEENS

3,000 4¼x4¼ One-Piece Sections at $3.50 per 1,000; orders over, write for special prices. Brood-Frames, Metal Corners, Smokers, Honey-Extractors and Fruit-Boxes. Send for Price-List, free. Only sent on application. 20Atf
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OF ITALIAN and HYBRID BEES for Sale in fine condition. Also **JAPANESE BUCKWHEAT.** Write for prices—away down. A. J. & E. HATFIELD,
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Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

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CHARLES F. MUTH & SON,
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P. S.—Send 10c. for Practical Hints to Bee-Keepers
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A SPECIALTY. Largest and Purest Carniolan Apiary in America.
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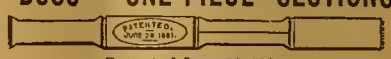

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WILL furnish you, the coming season, ONE PIECE SECTIONS as cheap as the cheapest.
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Watertown, Wis., Jan. 1, 1889. 40C3t
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HIVES, Sections, Foundation, Smokers, Frames, Crates, &c., furnished at greatly reduced rates. Also **ITALIAN BEES and QUEENS** at very low prices. Send for my Catalogue. Address,

A. F. STAUFFER,
29Ctf STERLING, ILLINOIS.
Mention the American Bee Journal.

Friends, If you are in anyway interested in BEES or HONEY

we will with pleasure send a sample copy of the **SEMI-MONTHLY GLEANINGS IN BEE-CULTURE,** with a descriptive price-list of latest improvements in Hives, Honey-Extractors, Comb Foundation, Section Honey-Boxes, all books and journals, and everything pertaining to Bee-Culture. *Nothing Patented.* Simply send your address *plainly written*, to A. I. ROOT, Medina, O.
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HEAD-QUARTERS IN THE SOUTH.

FACTORY OF

BEE HIVES, &C.

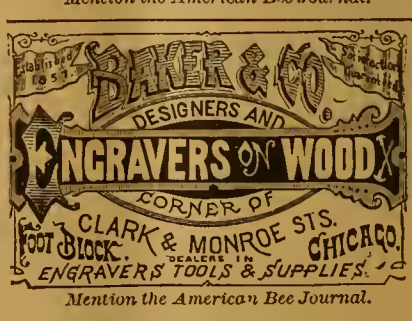
Early Nuclei & Italian Queens.

☞ Tenth annual Catalogue now ready.

5Ctf **PAUL L. VIALLON,** Bayou Goula, La.

Barnes' Foot-Power Machinery.

Read what J. I. PARENT, of CHARLTON, N. Y., says—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List Free. Address, W. F. & JOHN BARNES,
45Ctf No. 196 Ruby St., Rockford.
Mention the American Bee Journal.



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THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD.
PUBLISHED BY
THOS. G. NEWMAN & SON,
CHICAGO, ILL.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. June 8, 1889. No. 23.

EDITORIAL BUZZINGS.

The Cold and Rainy Weather during the latter part of May, has been very depressing. The bees have been unable to leave their hives for hours together, some days, on account of the rain and cold weather. White Clover blossoms are seen, but many colonies have to be fed to prevent starvation. The following lines from friend Eugene Secor, entitled, "Hope On," are very appropriate for us all just now:

Why cloud thy horizon with evil forebodings
When the blossoms of Hope seem not to unfold?
The mists that obscure thy sad heart's ardent longings,
May vanish like dew in a sunlight of gold.
Hope on, doubting brother, thy Father is guiding,
The future is His, He knoweth thee best;
What seemeth to thee like Infinite chiding,
Is only thy faith and devotion to test.

Music suitable for Decoration Day will be found in this issue. We promised to give another, and here it is—a beautiful song.

Some One wrote from Darrtown, Ohio, asking us to send Bee-Keepers' Union blanks, but forgot to sign his name. Will he please to try it again?

Poisoning Bees.—On this subject Prof. A. J. Cook wrote us the following on May 26, 1889:

DEAR FRIEND:—I have been fearing such reports of poisoning bees as occurs on page 331 of the AMERICAN BEE JOURNAL. I have urged in emphatic words **that no spraying be done till all blossoms fall from the trees.** To do so earlier is criminal, foolish, and without excuse. Please assert this again in full face type. I have written a "caution" to the New York *Tribune* to-day.

Let this *caution* be heeded by everybody. To spray trees while in bloom is very reprehensible indeed, and should never be done.

Experiments in Apiculture.—The Ontario Agricultural and Experimental Union is now engaged in making experiments in apiculture. The following has been issued as a circular, and has been sent to many of the prominent bee-keepers:

BRANTFORD, May 15, 1889.

DEAR SIR:—The Ontario Agricultural and Experimental Union have taken up experiments in apiculture. The desirability of securing a method which will prevent swarming, and at the same time not lessen the honey crop, is so great that any experiment in this direction will doubtless meet with the approval of bee-keepers at large, and a hearty co-operation on their part.

Chloroforming bees when under the swarming impulse has been experimented with slightly, and apparently with a measure of success to prevent swarming. The colony is to be treated as follows: A colony which has queen-cells started, and will apparently swarm, is to be treated with chloroform, and results noted as per list of questions. Another colony is to have the swarm returned and treated. More colonies may be treated, numbering 1, 2, 3, etc. A sponge with some drops of chloroform upon it may be inserted into the nozzle of the smoker, and the fumes of the drug driven in at the entrance of the hive or under the quilt, the same as smoke.

When the bees are in such a condition that they will not fly from the combs when the hive is severely jarred, the process is complete, and no more chloroform need be given.

The results will be given to each experimenter at the close of the season, and you are invited to assist in the work and fill out the list of questions, sending the answers to R. F. Holtermann, Brantford, Ont., Sept. 1.

Kindly let him know at once if you will undertake the experiment.

Yours very truly,
E. A. RENNIE.
R. F. HOLTERMANN.

The Blank mentioned in the circular is as follows:

After Swarming.	Before Swarming.
	No. of Colonies.
	Date of Treatment.
	Did honey-flow continue after treatm't
	Did colony swarm after treatment.
	If so, what date?
	Did you give the colony more room after or immediately before treatment?
	Did the bees appear to work with their usual vigor?
	Did your other colonies swarm after these were treated?
	Did you consider this method a success?

The results of these experiments will be duly given to our readers, when they are received and tabulated.

A Story of Thrilling Interest to all classes of readers, and constituting one of the most important contributions to our national history that has ever appeared in a magazine, is Col. Richard J. Linton's account of "John Brown and his Men, before and after the Raid on Harper's Ferry," in the June number of *Frank Leslie's Popular Monthly*, just out. The value of this notable paper is enhanced by the illustrations which accompany it, including portraits of Owen Brown, Richard Realf, and others, together with reproductions of the only existing contemporaneous pictures of the scenes at Harper's Ferry and Charlestown, where John Brown was tried and executed.

The S. W. Rich appeal has just been vigorously argued in the Circuit Court, and the Judge has reserved his decision until the next term of court in September. We have reason to think that the decision of the lower court will be reversed.

The facts in this case were briefly stated in the last report of the National Bee-Keepers' Union in these words:

Mr. S. W. Rich, of Hobart, N. Y., was sued by a jealous and disagreeable neighbor for $1,200 damages, and also to compel him to move his home apiary outside the city limits. Bee-keepers from several States attended the trial, which was held in October before Judge Boardman, at the Delaware County Court. About forty witnesses were called.

The plaintiff asked for $1,200 damages for injuries inflicted by the bees upon his person and property, but the jury, from which every person having bees was excluded, gave him but *six cents* to cover wounded feelings and damaged property!!

This virtually declared that the bees were *not* a nuisance. The result is an overwhelming defeat for the enemies of the pursuit of bee-keeping, and another victory for the National Bee-Keepers' Union.

But as the award of even 6 cents as damages carried with it costs amounting to $468.04, the case has been appealed to the Superior Court, which will cost about $500 more. Judge Boardman ruled against the bees every time, and in charging the jury compared the bees to a pig-sty and a slaughter-house.

This was the first case with one exception ever tried in the State, and the Judge having no law or precedent to go by, ruled just as *he* thought right, with the above result.

It will not do to let bee-keeping be likened to a pig-sty or a slaughter-pen! It is an honest and honorable pursuit, and its rights must be preserved. This appeal will be heard this fall, the Union having engaged lawyers, and guaranteed the expenses of the new trial. Had the Judge been inclined to be as *fair* as the jury, this would have been unnecessary.

Questions for Discussion at the French Congress of Bee-Keepers in 1889, are thus enumerated from *L'Apiculteur* in the *British Bee Journal* for May 9. Two or three of the subjects for discussion will cause a smile among American apiarists. The subjects are thus stated:

1. What are the bases of rational bee-keeping?
2. Should the management of bees be conducted on the same plan in different localities?
3. Is the production of wax the main object of keeping bees?
4. By what means may foul brood be prevented?
5. What influence have certain manures on the development or neutralization of nectar in flowers?
6. Is it possible to produce honey in France at a price as low as the cost of production in America?
7. In the absence of official statistics, is it possible to determine approximately the proportion of honey and wax derived from hives with movable combs, and hives with fixed combs?

Zinc Honey-Tank.—J. R. Eskew, of Iowa, asks this question: "Is zinc a suitable lining for a honey-tank? If not, why not?" We reply that a zinc tank is not even *suitable* for water—much less for honey. It is as *unsuitable* as a lead tank.

STREW FLOWERS ABOVE THE NOBLE DEAD.

NATIONAL ODE FOR DECORATION DAY.

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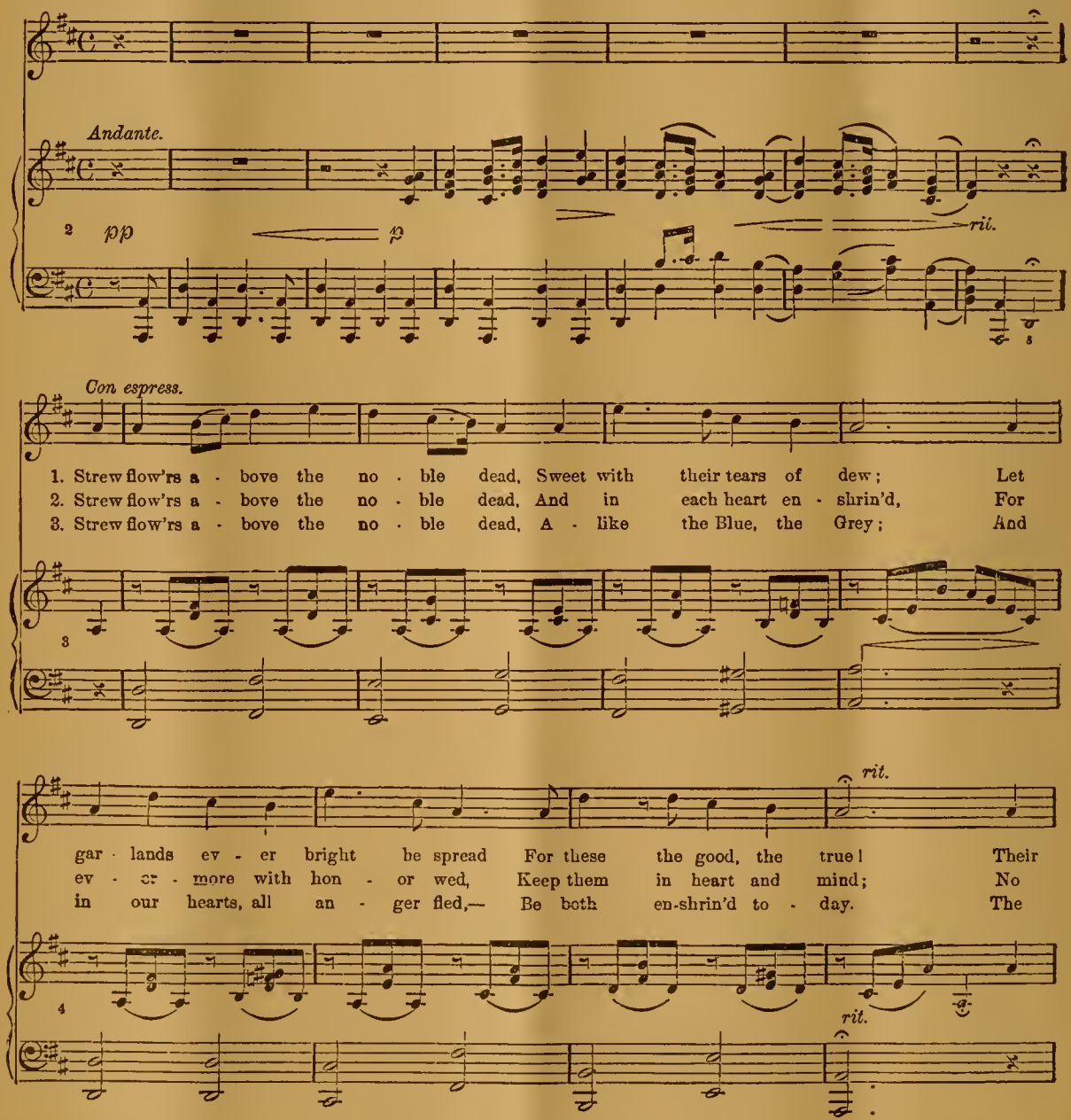
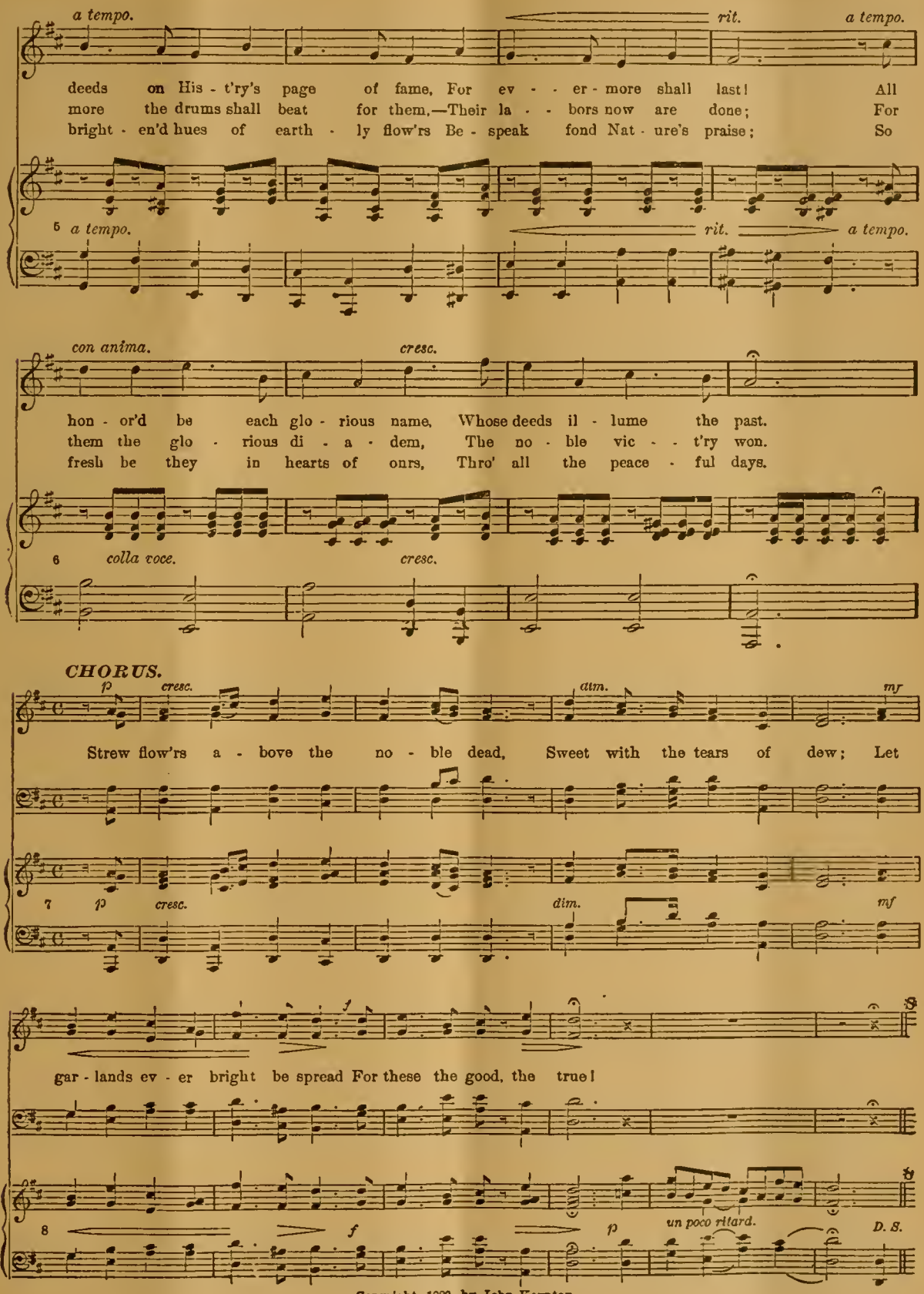
Words by JOHN KEYNTON. Music by GEO. W. MORGAN.


Andante.
pp
p
rit.
Con espress.
1. Strew flow'rs a - bove the no - ble dead, Sweet with their tears of dew; Let
2. Strew flow'rs a - bove the no - ble dead, And in each heart en - shrin'd, For
3. Strew flow'rs a - bove the no - ble dead, A - like the Blue, the Grey; And
gar - lands ev - er bright be spread For these the good, the true! Their
ev - er - more with hon - or wed, Keep them in heart and mind; No
in our hearts, all an - ger fled,— Be both en-shrin'd to - day. The
rit.
rit.


a tempo.
rit.
a tempo.
deeds on His - t'ry's page of fame, For ev - - er - more shall last! All
more the drums shall beat for them,—Their la - - bors now are done; For
bright - en'd hues of earth - ly flow'rs Be - speak fond Nat - ure's praise; So
5
a tempo.
rit.
a tempo.
con anima.
cresc.
hon - or'd be each glo - rious name, Whose deeds il - lume the past.
them the glo - rious di - a - dem, The no - ble vic - - t'ry won.
fresh be they in hearts of onrs, Thro' all the peace - ful days.
6
colla voce.
cresc.
CHORUS.
p
cresc.
dim.
mf
Strew flow'rs a - bove the no - ble dead, Sweet with the tears of dew; Let
7
p
cresc.
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gar - lands ev - er bright be spread For these the good, the true!
8
f
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un poco ritard.
D. S.

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QUERIES & REPLIES.

Results of Bee-Sting Poison in the Human System.

Written for the American Bee Journal

Query 634.—Does a person's system ever retain any of the poison from bee-stings, so as to come to the surface in the form of carbuncles, blood-boils, felons, etc.? My experience for 15 years says that in some cases it does, and it may be a secondary, if not a primary, cause.—New York.

I think not. My experience has been the reverse of yours.—EUGENE SECOR.

From my own experience and observation, I should say no. —MRS. L. HARRISON.

We do not believe that it has any such lasting effect. We never had a carbuncle, boil, or felon, and have had lots of bee-stings.—DADANT & SON.

I think not; but a medical expert could answer this question better.—C. H. DIBBERN.

I do not think that I have ever experienced anything of the kind.—C. C. MILLER.

I do not know, but I am rather of the opinion that your idea is right, or at least partly correct.—JAMES HEDDON.

I have no personal experience in that kind of a phenomenon, though I have read of it.—J. M. HAMBAUGH.

My experience would say no. I have had small pimples with suppuration to appear a few hours after being stung, but they very soon disappeared.—M. MAHIN.

My experience says not, in any sound and healthy persons. No doubt that in any one affected with scrofula, etc., it may have the tendency to produce such.—P. L. VIALLON.

A physician at my elbow says that he never knew any secondary consequences to come from the poison from bee-stings.—R. L. TAYLOR.

No. I have never seen any evidence that bee-sting poison will cause the maladies named. The worst cases of carbuncles, boils, etc., that I have treated, were in persons who were probably never stung by a bee.—G. L. TINKER.

I have never experienced any trouble of this sort, nor have I known any one who has. Mr. Langstroth, Mr. Heddon and some others suffer from bee-poison.—J. M. SHUCK.

I think not. You know that bee-stings are recommended as medicine for "dropsical conditions of the cellular tissue, skin, serous and mucous membranes, and the glandular system." Ahem!—MAHALA B. CHADDOCK.

I have never known any instance of this kind; and I believe it safe to say that bee-poison (formic acid) is never a *primary* cause.—WILL M. BARNUM.

It is possible for a person, from repeated application of the sting, to become inured to the action of the poison; and it is quite likely that there are persons with some idiosyncrasy of constitution where such symptoms may manifest themselves, although I have never met such cases.—J.P.H. BROWN.

I think not. Through some impaired condition of the body, stings may be more severe in their effects, and the body suffer from various diseases and maladies; but I doubt if one causes the other. The enfeebled body suffers more from both.—A. J. COOK.

I do not know. I never knew a *bee-keeper* to be troubled that way, unless he was pretty well filled with beer or whisky, and then he blames the bee-stings. I have had my wrists so filled with poison from bee-stings, as to be almost paralyzed, and I never had a carbuncle, a boil, or a felon.—A. B. MASON.

I think that you are mistaken. Previous to my keeping bees I used to have boils, etc., but for the last 20 years, having received thousands of stings during that time, I have not had a single boil or anything of the kind. I am pretty well satisfied that the sting of the bee does not have any effect on a person whatever, aside from the smart and swelling caused at the time. —G. M. DOOLITTLE.

I do not think that a positive answer can be given, based upon any certain proofs. In my opinion, however, the bee-poison is not so retained in the system, as to produce any permanent or constitutional effect. How can it be a secondary cause of blood-poisoning, when it is antiseptic in its nature? —J. E. POND.

I would suggest that a healthy "system" by the assistance of "nature," is capable of throwing off all acid poison that it is likely to absorb from the honey-bee. I have observed, however, that at certain seasons of the year, I have felt a peculiar sensation at times; as, for instance, a stinging "twitch" in certain parts of the body that forcibly reminds me of a bee-sting; but these sensations are of a nervous character, and may result from some other cause.—G. W. DEMAREE.

It is not a primary or secondary cause of boils, etc. When the system is deranged or diseased, the sting often causes much trouble, and sometimes death.—THE EDITOR.

CORRESPONDENCE.

THE LOCUSTS.

Interesting Facts about the 17-Year Locusts.

Written for the American Bee Journal

BY PROF. A. J. COOK.

I have received the following letter from Mr. J. T. Wilson, of Little Hickman, Ky., who desires a reply in the AMERICAN BEE JOURNAL:

The 17-year locusts are making their appearance here just now. I would like to have you write an article for the AMERICAN BEE JOURNAL, and tell all you know about them. We know that they come every 17 years, and lay their eggs in twigs of trees. Now where are they, and in what state are they, until they appear again?

The cicada 17-decim—17-year cicada (locust, though a common name, is yet an improper one) are very curious insects. First, they come once in 17 years, because it takes them nearly that long to develop as larvæ. Again, they come in great numbers, so that they attract much attention.

Thirdly, they make a whirring, shrill noise, doubtless their love-song, which, when they are very common, makes the trees ring; so that it is not possible to hear much else when a swarm of these cicadæ appear. It is hard to visit under trees when cicadæ are abundant, and are holding a concert to charm their mates.

Lastly, they cut into twigs and branches of fruit and other trees to lay their eggs; and so they do great harm at times.

The 17-year cicada is a black, robust insect, with strong red-colored veins to the wings. The males have a strange musical apparatus at the base of their wings. They come from May to August, depending upon the latitude. After pairing, the female cuts into limbs and twigs to lay her eggs, thus often injuring orchards quite seriously. When the eggs hatch, the larvæ fall to the ground, and enter the earth, where they feed on roots of plants for over 16 years. They then come forth from the earth, crawl upon some stem or branch split open on the back, and the beautiful cicadæ come forth to celebrate their nuptials with song and merry-making.

Why are they so long in the larval state? Is it not because they dig deep into the earth, and so growth and development are retarded by the cold? This would also explain why they do so little harm. They grow so slowly, and are so inactive that they eat but little, and so we mind not the damage, even though they are sucking the root-

letts of our valued plants dry of sap. We have the analogue of this in our bees—they are quiet in the cold of winter, do little, and do not eat much.

The same mail that brought Mr. Wilson's letter, also brought one from Geo. E. Boggs, of Waynesville, N. C., asking how to protect against these destroyers. I can give no answer to this. Though these cicadæ are very unscientific pruners, they usually do not wholly destroy a tree, though they often injure trees greatly.

We can get comfort in the fact that they come only four or five times in a lifetime, unless there are separate broods in our region. We never have these cicadæ here; though a similar one (cicada tibicem), with green veins to its wings, is often seen and heard. This latter is only a few years in maturing. Very likely it works nearer the surface of the earth.

Agricultural College, Mich.

DIVIDING.

Experience with Dividing Colonies for Increase.

Written for the American Bee Journal

BY C. P. HENRY.

I began the season of 1889 with 9 colonies, all having been wintered on the summer stands, and came through seemingly in good condition. Having read so much on dividing colonies for increase, I decided to try both plans to satisfy myself as to the better one, and I am now prepared to give a few items from experience.

While I find that those colonies left to swarm as nature intended, have not increased as rapidly as I would have them do, they are all strong and thriving colonies, ready for the harvest at any time the honey flow may come; while, on the other hand, those worked by dividing, are greater in the number of colonies, but shorter of stores, and not half so populous.

Still another objectionable feature that accompanies dividing, is the starting of robbing, which I have had to contend with to my own vexation, almost causing me to fully decide in favor of increase by natural swarming; by this means, we will—if we are awake to our duty, and keep all colonies queened, allowing no weak ones in our apiary to give robbers a start—exclude robbing to a great extent.

My bees were so very deep in the rut of robbing at one time this spring, caused by nothing more nor less than dividing colonies, that I could hardly go into my apiary without getting stung, or at least being told by some angry robber bee that my presence was very offensive; and in the meantime they were killed in front of the entrances in great heaps. I soon saw that this must be stopped, therefore some speedy work must be done.

With the foregoing views before me, I proceeded to shut up all weak colonies, but this did not answer, for the robbers proceeded on some of my strongest colonies, and then came the "tug of war"—dead bees were strewn all over the earth around the apiary. What must I do next, but close all entrances of hives that showed the least signs of being robbed, to a bee-space, and cover the hives with wet cloths, and throw wet weeds and grass over the entrances? By this means I kept the hives cool, and to some extent, excluded the robbers from the entrance.

After going through all this trouble and vexation, I am very glad indeed to say that my bees, at the expense of many lives, have decided to behave themselves, and get about their business. I hope never to experience another such a "riot" among my bees; and in order to do my duty to prevent it, I hardly think that I will ever divide another colony of bees. Perhaps some of my readers will think that I have changed my mind in this direction very suddenly, which indeed I have, I must admit; but in answer to this I will say, of what use is purchased experience, unless one profits thereby? Mine cost me dearly.

Blooming Grove, Tex., May 17, 1889.

BEE-LIFE.

How Long do the Bees Live Ordinarily?

Written for the American Rural Home

BY G. M. DOOLITTLE.

Picking up a paper recently, I noticed an item which was undoubtedly set a-going by some newspaper reporter who did not care whether he was telling the truth or not, to the effect that bees were very short-lived insects, and that the average life of the worker-bee during the summer season was but thirty days. Surely, no one need be ignorant on this subject when one experiment would tell them the truth in the matter, and convince them that the average life of the worker is about 45 days, or one-third more than was given in the item which I saw.

Take a colony of black or German bees, for instance, and about the 10th of June take their queen away and introduce an Italian queen, keeping record of the date on which this change was made. In 21 days the last black bee will have emerged from its cell, and if the Italian queen went to laying immediately, the first yellow bee will have made its appearance; which fact should be jotted down also. At the end of 45 days from the time the last black bee hatched no black bees can be found in the colony. At 40 days plenty of them can be seen, they growing less and less each day, so that on the forty-fourth, it will be very few indeed that are left.

This is for the summer months, but does not apply at all for those of the winter. The life of the bee depends on the work it does, thus when it labors the most its life is the shortest. Hence it comes about that through the inactivity brought on by cold weather, the bee can live from seven to eight months. This is proven by changing the queens as before, only it is to be done this time about the middle of September. Soon after the first of October, the last black bee will be hatched, but I have often found a few black bees on the first day of June the next year, in a colony so treated.

Also, when spring opens, or about the first of April, there will be very few yellow bees in this hive, which shows that very little brood is reared from October until April, as well as to tell us that more bees die in two months in the spring than during six months of winter.

The life of the drones is regulated very largely by the workers, for they are usually killed or driven off by the workers long before they would die of old age. Any sudden cessation in the flow of honey from the fields is often considered sufficient reason for their being driven out to die, or the killing of them by stinging, if they are persistent in staying in the hive, so it is hard to tell just what age they may attain to, were they allowed to live to a good old age.

More apiarists think that they would live about the same length of time which the workers do, but I am of the opinion that they are little shorter lived. It is a rare thing that any drones are allowed to stay in the hive after the honey harvest is over in the fall, still we have a few reports of drones having been wintered over.

The average life of the queen is about three years, although some have been known to live five years. They live also in proportion to the work they do, or according to the number of eggs which they lay, as egg-laying is the only work which they do.

Under our present system of management, we coax the queen to lay as many eggs in one year as she usually would were she in a tree or an old box-hive in two years; hence most apiarists think that all queens should be replaced after the second year, with

those which have just commenced to lay.

However, I do not make this a practice, for I find that the bees will supersede their own queen when she gets to be too old to be of service to them; so I trust the matter to them, believing that they know what is best for them along this line better than I do.

Borodino, N. Y.

TEXAS.

Concerning Bees and Honey in that Large State.

Written for the American Bee Journal

BY A. C. ATEN.

Bees have been doing well in this part of Texas so far this spring. I left too much honey in my hives in the fall, and although I gave them plenty of room, they swarmed some in April, beginning about the first of the month. I have never been troubled much with my bees swarming, for the last five years, and under such favorable circumstances, I had only 8 swarms that I know of from 140 colonies. I attributed my success in keeping down swarming, to giving plenty of room.

Horse-mint Looks Promising.

We had a fine rain three days ago, and bees are now booming on horse-mint and wild marigold. There is a fine crop of horse-mint this season, and everything is now favorable for a good honey harvest. Wheat and early oats are ripe, and being harvested; and corn is on an average waist high.

House-Martins and King-Birds.

I expect that Mrs. Sherman (see page 307) wishes to know if the common house-martin will destroy bees. It is affirmed by some intelligent bee-men that they will, and for this reason I have never put up any martin-boxes. There are but few king-birds here, but I saw one in my home apiary a few days ago, catching bees as usual.

Laying Workers and Drone-Laying Queens.

I will say for the benefit of Mr. Thos. M. Pierce (see page 308), that the most effectual way of getting rid of laying workers, or of a drone-laying queen, if you cannot find them, is to shake the bees all off the frames, and out of the hive, on the ground a couple of rods away. The bees will mostly get back, but the laying worker or queen will not; then give them a frame of eggs or a queen-cell, and give them a chance to rear a queen.

They should be given a frame of brood almost ready to hatch, for if they are all old bees in the hive, they may kill the young queen when she returns from her wedding flight.

Keeping Bees in Texas.

I will say to the friend that inquires in regard to bee-keeping in Texas, that bees never perish from the effects of cold here, and if they have plenty of stores, and are in anything like a good condition, they will get through the winter.

From some cause or other, I did not have a queenless colony this spring in my apiaries of 140 colonies. One drone-laying queen was the nearest to it. I have sometimes had over a half dozen in a less number of colonies. Was it because they had so much honey?

Another thing that I will call attention to, is this: There does not appear to be a queen but what is prolific—all the colonies have immense quantities of bees. I have long thought that most queens would lay enough eggs under favorable circumstances, and this appears to confirm it.

I have had to sell most of my honey for 6 cents per pound for the extracted; but when I consider that the whole amount of work that my bees received last year to produce and extract 11,000 pounds of honey, was only six weeks, it was not so bad after all. My bees are in Travis county.

Round Rock, Tex., May 20, 1889.

VERMONT.

As a Honey-Producing Region It is Excellent.

Written for the American Agriculturist

BY SAMUEL CUSHMAN.

Addison county, Vermont, celebrated for its pure-bred Merino sheep and horses, also stands high as a honey-producing region. The heavy clay soil favors an abundant growth of white clover, which usually yields large quantities of the finest honey. Basswood trees also abound. The surplus honey yield being of short duration and very heavy, allows quick work by the bees, which insures delicate white comb and, with good management, completely filled boxes. This, with its fine quality, gives Addison comb honey its justly-deserved reputation.

Numerous farmers and a few specialists scattered about the county keep bees. In some cases 200 colonies are kept in one yard with good results, while from 40 to 100 is the usual number. Many, with no love for the pursuit, but who have engaged in it simply for the dollars and cents to be made by following the instructions of leading bee-masters, have found it as profitable, or more so, than any other branch of their farm work, and now market their ton or two of comb honey yearly. The specialists who run a number of large yards in different locations, and make it their principal business, have also been successful in securing from 10 to 20 tons of honey in a single good season.

The most extensive apiarist in this section, and probably the one having the largest number of colonies in New England, is Mr. A. E. Manum. He commenced in 1870 with 2 colonies, and, although like other bee-keepers, he soon found that a good season was usually followed by a poor one, his success led him to extend the business, and in the spring of 1885 he had five different yards of 470 colonies. That season was an unusual one, and he obtained from them 19 tons of comb honey, and 3 tons of extracted honey, and an increase in bees, making 850 colonies in the fall.

This large crop was nearly all gathered in 12 days, and one of the best colonies on scales at Yard No. 2, while working on basswood, gathered in one day 33 pounds, and in four days 124 pounds. The largest yield from one hive was 228 pounds of comb honey. His greatest yield in 1883 was 312 pounds of comb honey from the bees in one hive.

As an offset to this and the previous good years, each season since 1885 has been a poor one, and his bees have not paid expenses. With a few exceptions in favored localities, bee-keepers everywhere have fared the same, although three such poor seasons in succession are unparalleled in the history of the industry in this country. Mr. Manum's out-apiaries are from 2 to 16 miles from the home yard.

The Hive Used by Mr. Manum.

At the start, Mr. Manum tried all the different hives, and studied and experimented to get the best for practical work. By combining, modifying and inventing new features, he turned out that which met his ideas, and which, with a system of management suited to it, is now used in all his apiaries and many others. The hive is double-walled, and consists of a stand, inner hive or brood-chamber, and an outer case. The entrance is through the stand underneath the brood-chamber, and cannot be clogged by snow; is protected from rain, and by means of a slide it can be graduated from 2 inches long by $\frac{3}{8}$ of an inch wide in winter, to 14 inches long by 2 inches wide—the full summer width when the slide is removed.

The outer case is movable, and is in three separate sections. The roof is of clapboards. In each gable is a 2-inch

auger-hole for ventilation. This is protected by a wire-cloth funnel projecting outward, which allows the bees to leave one at a time, but not to enter. This is an important proviso when bees are hastily shut in, or when surplus honey is removed. The 3-inch space between the walls is filled with chaff or sawdust, which is allowed to remain during the winter and summer. When damp, it can be readily replaced.

Having so many loose parts, the hive can be moved without heavy lifting, and, when properly packed, is sufficient protection from Eastern winters. The hive-stands rest on two lengths of joist to keep them off the ground, and are set perfectly level. Hives once located are not afterward moved unless carried away from the yard.

The brood-chamber is covered by a board, when the sections for honey are not in place, and contains 12 hanging frames, 12 inches long by 9½ inches deep.

The surplus arrangement consists of cases, at one end of which are a "follower" and a wood screw, by which the sections are tightly clamped together. Each section is supplied with a full sheet of foundation, and between each row are placed thin wood separators to insure perfect combs.

Mr. Manum was probably the first to make white-poplar dovetailed sections, which are now so much used. Previous to this they were of pine, and made to nail. These sections, put together with glue, are not only the strongest, but the neatest sections in use. Two of the Bristol clamps cover the brood-chamber, and can be tiered up as high as desired. Mr. Manum has lately discarded all but one-pound sections.

When filled with finished combs, the cases are disconnected from the brood-chamber, and before they are removed to the honey-house, the bees find their way out at the bee-escape in the gable. A cord and a simple device allows the hive-cover to be tipped back instead of having to lift them off bodily when opened.

Caring for Several Apiaries.

The hives are 5 feet from each other, in rows 12 feet apart. To prevent upsetting by heavy storms in winter, a large cord is thrown across the roof and fastened to a stake driven in the ground on each side. During the winter everything needed in the summer campaign is prepared ready to be quickly supplied to the different yards by the teams which are then constantly on the road. In the spring, at certain intervals, Mr. Manum and his assistants spend a day in each apiary, giving the aid to colonies which is so important. These rounds are made more and more often until the swarming season is about to commence, when one competent person is placed in charge, and is in constant attendance for 6 or 8 weeks, or until the honey season is over.

Board is usually obtained at the farm-house near which the yard is located, and the help are continually employed in hiving swarms, putting on or taking off sections, and in attending to other necessary details. As experienced men are not always to be had, many knowing nothing of the business must be taught, and as they usually commence for themselves as soon as really competent, this instruction must be given again and again. After a few weeks' instruction, some are able to do nicely the remainder of the season with occasional looking after. Women are also employed, and one who did not know a queen from a drone when she commenced, took charge of 116 colonies the second season.

Keeping a Record of Colonies.

At each apiary there is a building containing a honey-room, where "clamps" of honey are temporarily stored, and a work-room where fixtures not in use are also housed. In each yard one hive stands on scales, of which a close watch is kept after the clover and basswood blossoms open.

On the front of every hive in plain black figures is the colony's number, while inside is a record of the colony, its origin, age of queen, date of each examination that season, and their condition when examined. This is written in abbreviated characters on a piece of section or smooth board, and laid on the packing. The apiarist also keeps in a book a list of the colonies casting swarms, and of those requiring special attention at a certain time.

Hiving the Swarms.

The wings of all queens are clipped to prevent their going off with the swarms. When the latter attempt to leave, they are caught by an arrangement consisting of a wire-cloth cage fastened to a pole. It is made to stand anywhere by two legs, which fold up when not in use. A sufficient number of these are always at hand. When a swarm issues, the queen is caught on the ground near the hive and placed in the cage of the catcher, which is stood or held in the midst of or near the flying swarm, and the bees soon settle upon it. They are then left, and attention is given to the others, which usually issue at about the same time.

If the swarm has gone some distance, or clustered in the top of a tall tree, it will soon return, as it is without a queen. So the catcher containing their queen is placed in front of the hive from which they came, and as they return they find her and cluster upon it. To make this more certain, the entrance of the old hive is covered with a cloth. This plan differs from that of most bee-keepers, and enables Mr. Manum to quickly handle many swarms.

In hiving, when time is more plenty, about a third of each swarm is shaken back in front of the old hive, and the balance of two or three swarms, with one queen, is hived in a new hive. As this makes a powerful working colony in the new hive, abundant room in sections is immediately given.

Marketing the Honey.

A close watch is kept of the apiary, and more storage room is added as fast as used to advantage, and the filled clamps are removed as soon as they are completely sealed. A large crop can be cut off from communication with the brood-chamber in a short time, and when free from bees is carried to the honey-room, and afterward carted to the central honey-house. It is then scraped clean of propolis by women and girls, and, after being graded, is stored in the honey-room to ripen.

In the fall, wood sides of white poplar, instead of glass, are fastened to each section, and they are shipped to market in white-poplar crates, holding two one-pound sections. Sections full of nice white comb, those full of darker combs and those light in weight, are each crated separately, and the crates are marked "Green Mountain," "Comb Honey," and "Light Weight," according to contents. A few of the very best and most perfect are selected from the first quality, and go as the "Snow Flake" brand.

Feeding the Bees for Winter.

As most of the crop is secured as surplus, and but little is gathered after its removal, that remaining below is no more than the bees need during the season. Therefore, to keep them alive until spring, each colony must in early fall have its ration of sugar syrup. This season 28 barrels of the best granulated sugar were required to insure sufficient winter food.

For feeders, maple-syrup cans with small holes punched in their bottoms are used. Three short legs of tin raise them enough to give the bees room to get at the holes. These cans are filled with syrup, and put over holes in the cover of the hive, and are renewed until the proper amount of food is consumed.

After the honey season, instead of a constant attendant at the out-yards, frequent visits are made, as in the

spring, and are continued until the bees are snug for winter. Then an occasional trip is made on a warm day when the bees can fly, to see that all the entrances are clear.

Moving Colonies, etc.

Mr. Manum has, at present, about 700 colonies in eight different yards. The number in each is limited to 125 in the fall. The colonies in excess of this number are either sold or carried to a new location. For this work a double and single team are used. By the use of racks which hold a second tier, the former takes 50 colonies and the latter 23 colonies. Before loading, the frames are immovably fixed, and a sheet of muslin is tacked over the brood-chamber to give air, while in very warm weather a rim covered with wire-cloth is necessary to their safety.

Mr. Manum's bees are mostly Italians, although in some apiaries there is a trace of the black and Holy-Land races. He is about to test a few Carniolan queens. The working bees are reared from the best Italian colonies, which are selected out of this large number as possessing unusual excellences. I saw many fine, large queens, a shade darker than the average Italians, having very plump and thick-set bodies.

In each yard, distributed among the regular hives, were many nucleus colonies—the temporary quarters of surplus queens.

Mr. Manum has planted honey-producing crops on a limited scale, but he is not yet certain that they can be made to pay.

SWARMS.

The Proper Time to Have Increase.

Written for the American Bee Journal
BY L. W. LIGHTY.

"A swarm in May is worth a load of hay," and so on, as the jingle goes, should go with the gum and box-hive. The time to have swarms depends upon the latitude, and upon the season. The bee-keeper should know when his surplus honey-flow commences, and then he can work to an advantage.

Fruit-bloom and very early spring flowers will tend to encourage the bees to rear much brood, and, if not properly managed, they will often swarm right after fruit-bloom; and that is to be deplored, with me.

When the bee-keeper sees that the bees incline to swarming, or are crowded, he should give them room in the brood-chamber, and hold back the swarms as much as possible; but get everything crowded with brood; then, when white clover and locust comes, crowd in the brood-chamber and put on sections, when a swarm will shortly issue. Hive that on the old stand, and it will be in trim to get honey, and will be "worth a load of hay," even if it does not jingle with June.

Swarms right after fruit-bloom, when the honey is scarce, generally do no good for me, but spend their time in building drone-comb, and often crooked comb; putting propolis where I did not want it, and were a general nuisance. By the time that clover was ready, they were not in a condition to work; the old bees had considerably dwindled, and the young ones were not yet ready to work.

Fruit-bloom honey can be secured by doubling up colonies, but it is hardly worth the while, as the honey is generally inferior. It would be better to get ready for the fine white honey harvest.

Mulberry, Pa.

The Boon of Sleep.

Written for the American Bee Journal
BY JOHN ANDREWS.

The boon of sweet, refreshing sleep,
Unbroken by an anxious care,
Where sweet repose its vigils keep,
And peaceful quiet everywhere,
Is treasured still, and while we rest,
Contentment reigns within our breast.

We feel no toil, we see no ill;
We grasp the present, ask not why;
Nor have we aught within to chill
The moments, as they pass us by,
As we have sweet and calm repose,
Unharmed by passion or its woes.

'Tis sweet to let all care go out,
And take in place unharmed repose—
Unmarred by any fret, or doubt,
Or clouded by the least of woes;
A peaceful sleep, of harm bereft,
Restoring Nature's balmy gift.

Patten's Mills, N. Y.

EXPERIENCE.

The Success with One Colony in Nebraska.

Written for the American Bee Journal
BY FRANK S. JOHNSON.

Years ago my father used to keep bees on the farm in Wisconsin, in box-hives, and let them winter or not, as it happened. Although Mr. Jonathan Grimm, of Jefferson county, Wis., was then a very successful bee-keeper, most of the farmers who kept bees paid no attention to them, and all of my father's bees finally died.

Ever since then I have wanted to try my hand at the business; so, two years ago, in July, I received a three-frame nucleus with a tested Italian queen, from Michigan, costing me $6. I read "A B C of Bee-Keeping," and as I studied and watched my bees, I became enthusiastic. I made a hive, and the bees filled it the first season. I took only one frame from them, leaving nine American frames of solid honey for their winter food.

During the first winter I put a large box over them, and as the weather grew cold, I put them into the cellar; but I think that it was too warm, for they were very uneasy, and tried to get out. As soon as the weather became a little better, I put them back on the summer stands.

During the next summer (1888) they did finely. I gave them plenty of room in a new chaff hive, packed with ground cork, and they stored over 200 pounds of honey. I sold honey to the amount of $23.00, besides having 15 pounds for spring feeding, and eight frames of solid honey in the hive.

They wintered nicely on the summer stand, in the chaff hive, with a thick cushion over them, and were so strong in bees this spring that I was afraid that they would swarm; so I gave them a sheet of foundation in the middle of the brood-nest, and as soon as there were eggs deposited in the cells, I divided them, placing the new swarm in a chaff hive in the place of the old hive, and removing the latter a few feet. In a few days there were a dozen fine queen-cells started.

Early this spring I obtained a colony of hybrid bees from a farmer here, in exchange for two hives, which I made for him. I took them out of the box-hive in April. In a short time they were rearing brood rapidly.

On May 17, as the queen-cells in my other hive were about to hatch, I divided the hybrids, giving them one frame from the other hive, having a fine cell. They all seem to be working well, and I am delighted with my success, so far.

I mean to work my two Italian colonies for honey this season, and the hybrids for increase; then in the spring I will Italianize all hybrid colonies.

I am experimenting with them during my spare moments out of the store, and I find it very interesting, besides being profitable and instructive.

I think that those bee-keepers who let their bees starve in the spring, are like some farmers that I have known, who allow their cattle and horses to become so poor that they die in the spring. If my bees should be hungry, I would feed them the same as if my cow or horse was hungry; and I shall continue to leave the hive solid full of honey during the winter, for if it is not used, it will come handy in

the spring, provided, of course, if it is good, healthy feed for the bees.

I read the AMERICAN BEE JOURNAL with great interest, and if my experience with my little apiary will give encouragement to other beginners, I will be very glad. My reported success has caused five of my neighbors to have me purchase 7 colonies of bees for them, for their own use only; and if I could spare any of mine, I could get from $7.50 to $10.00 per colony. In fact I have been offered $10.00 for a colony several times.

Campbell, Nebr., May 20, 1889.

LAYING WORKERS.

How I Manage to Get Rid of these Pests.

Written for the Prairie Farmer

BY MRS. L. HARRISON.

Where a colony has been a long time queenless, some of the workers aspire to motherhood and lay, but their eggs invariably produce drones. Laying workers lay very irregularly in worker-comb, and build out the cells to accommodate their huge bodies. Their presence can be told at a glance, as the cells are scattered here and there, and not joined together as they would be if the queen were a drone layer. Laying workers cannot be distinguished from other workers, as they look alike, so they cannot be destroyed. They are a nuisance in a hive, for they will destroy a queen as soon as introduced. And, even if they allow a young queen to emerge from a cell, they will destroy her on her return from her bridal tour. As many as a dozen laying workers have been seen upon one comb.

There are several ways of getting rid of these pests. One way is to carry the hive away, and put another in its place. The combs in the laying-worker hive can have the bees brushed off and returned to the hive on the old stand, and accept a fertile queen, while the would-be queens will not.

The way that I manage a colony that has laying workers is as follows: I take out all the combs excepting the two outsde ones; then I go to a strong colony and remove a frame or two, as the strength of the colony may warrant, covered with bees, being careful not to remove the queen, and put them into the laying-worker colony, and fill their place with the combs taken from the laying workers.

If I have no queen to introduce, I let them rear one. These new bees that are introduced will have no nonsense, and will dispose of the laying workers in their own time and way.

Prevention is better than cure, for just as sure as a colony of bees is left without a queen, or the means of rearing another, for two weeks, the pests will appear. When I have a queenless colony that I have given eggs and larvæ to rear a queen, while she is being reared, every four or five days I give them a fresh comb containing eggs and larvæ, which gives the bees employment, and seems to keep up the the strength of the colony. If one is given them about the time the queen emerges from the cell, it will furnish them the means of rearing another, if she is lost on her bridal tour.

Peoria, Ills.

FREAKS OF BEES.

Race Peculiarity, or Freaks of Some Bees.

Written for the American Bee Journal

BY S. D. HASKIN.

The following are some of the freaks of bees that have occurred under my own observation: On one occasion three swarms clustered together, and were hived in two hives; but one hive had probably two-thirds of the bees, and they showed that they had a preference to one hive. As soon as they were inside, they were located, and all seemed lovely until the next morning; when the one with the most bees manifested much discontent, or uneasiness, and about 12 o'clock (it being quite warm) it swarmed and clustered. It was hived all right, and did nicely, having a queen; one was in the other hive, and did equally well. These were all first swarms.

As it is quite common that bees swarm but once, I have often let them have their own way about it, and in case of a second swarm, I locate them close by the parent colony for a day or two, and then cut out queen-cells, and place the young swarm on top of the old colony, and generally they will go below and stay with the old bees; on two occasions the young queen passed down through the old colony and became fertilized, returned, and set up house-keeping; and, as far as I could determine, they did just as well as though on separate stands. There was but one entrance, and that was in the old hive.

The summer and fall of 1887 was very dry, so that there were no young bees for wintering, but had the following spring been as early as usual, I think that bees would have done tolerably well; but it was very backward, wet and cold, so that the old bees mostly died before they could rear young bees to take their places; so I doubled up the little clusters left, as best I could, and late in the season there were two, I thought, to unite, standing side by side; I placed one upon the other, and about this time they began to build up a little. I watched them closely, and they did so well that after a while I separated them again, and they did well last fall, and have wintered nicely. The young swarm that I had May 12 is building up finely.

Waterville, Maine, May 17, 1889.

NEW HONEY.

How a Youthful Bee-Keeper Secured Early Honey.

Written for the American Bee Journal

BY W. A. HODGE.

I want to tell how a young hand at the business has "played it" on some of us older heads. I shall personate him as Charley Lawrence, of Victory, Wis., who has some 53 colonies of bees that were given to him by his aged father, who is now deceased.

Charley wintered the 53 colonies in the cellar, and this spring, early in March, he took them out, all strong and roaring. Their first drive was to the islands of the old Mississippi, and they came home loaded with pollen and honey; so Charley concluded that they meant business, and he sent at once to the AMERICAN BEE JOURNAL office for a lot of sections.

The sections came on short notice (as does everything ordered from that office), and with all possible speed he put them on, long before any of us thought of putting on sections. Now what has been the result? Why, Charley came to my house the other morning with the broadest smile on his face that you ever saw, and in his hand he held a new, white, one-pound section of honey, and said to me, "Look here, old man, don't you want some new honey for your breakfast?"

I will admit that I was somewhat surprised, and said: "Why, Charley, where did you get that?" "Oh," he said, "I just took it off the hive." I said, "Yes, you did!!"

"Well," said he, "if you don't believe it, just go down with me and see. I have between 1,500 and 1,600 one-pound sections nearly capped, and will be ready to come off inside of a week."

Why, this idea of letting a young lad come to the front with 1,600 pounds of new white honey, this early in May, and that away up in cold Wisconsin—why, surely, I for one take a back seat, and call this a "connndrum," and say, Charley, go it while your young!

Victory, Wis., May 25, 1889.

Doing Remarkably Well.—G. M. Whitford, Arlington, Nebr., on May 28, 1889, writes:

My bees came through the winter without the loss of a single colony. All but 4 colonies were placed in the cellar on Nov. 17, 1888, and were taken out on April 9, 1889. Those that were packed upon the summer stands consumed less stores than those in the cellar. Although the nights are too cool for the secretion of nectar, the bees are doing remarkably well. I have had two swarms, have divided one colony, and have several more ready to divide.

Plenty of Rain, etc.—Geo. G Scott, Wadena, Iowa, on May 28, 1889, says:

I have had several swarms so far, which is very early for northern Iowa. The dandelion bloom was abundant. White clover is beginning to bloom. We are having plenty of rain, with frosty nights.

Bees Bringing in Honey.—Mr. H. A. Cunningham, McLean Co., Ills., writes thus:

Please state in the AMERICAN BEE JOURNAL if bees show by their appearance when they are carrying honey into their hives. If so, how?

Prof. Cook thus answers this question by our request:

There is no way to tell or to guess, only by their air of work and more plump appearance. Of course pulling them apart and finding a full, plump honey-stomach is conclusive.—A. J. COOK.

Very Peculiar Swarm.—H. C. Mosely, Charleston, S. C., on May 21, 1889, writes:

I would like to ask for some information from the experienced correspondents of the BEE JOURNAL, in regard to a colony of Italian bees that swarmed on April 2, 18 and 20, and I secured all the swarms. The swarm of April 20 being rather small, I put it into a hive about one-third smaller than the usual size; they went to work finely, and proved to be rapid workers. On the eighth day after being put into the hive, I noticed that they began to carry in pollen, and increased rapidly in this deposit from day to day. On May 19 they began tearing the young bees out of the comb, by the wholesale; I counted 25 in about 15 minutes that they flew out of the hive with. This being May 21, it is now three days, and they are still vigorously taking them out. I omitted to state that they have filled the hive about half full of nice, white comb honey. Will some one give a cause for this strange and apparently unnecessary cruelty on the part of the bees, to their offspring? I would like to know a remedy for it. The swarm that I allude to is the one issued on April 20.

White Clover—Cold Weather.—W. H. Graves, Duncan, Ills., on May 28, 1889, says:

We have an abundance of white clover, but it is so cold that bees are doing but little on it; mine are just beginning to swarm. If it would only turn warmer, I think that we would have a good flow of honey. I have 11 acres of Alsike just coming into bloom.

Killing off Drones.—P. Sheridan, Perrinton, Mich., on May 27, 1889, says:

My bees came through the winter and spring all right. I had 11 colonies protected on the summer stands, and part of them are killing off the drones. They worked well on fruit-blossoms and spring flowers, but they are doing nothing at present. I would not like to do without the AMERICAN BEE JOURNAL, as it is a help to any person, even to those old fogies who know so much about bees!

Severe Frosts—Wintered Well.—I. N. Rogers, Jackson, Mich., on May 27, 1889, writes:

Upon examining my bees last Saturday, I found them in a nearly starving condition. In the early spring they built up rapidly, and I expected early swarms, but a drouth setting in, and high, northerly winds prevailing the greater part of the time, the flowers secreted nectar only in limited quantities; even during apple-bloom bees brought in only enough to keep up brood-rearing. There were three quite severe frosts here the past week, doing some damage to vegetation, but not to fruit. Raspberries are just ready to blossom, and with suitable weather, honey will be coming in in a few days. I have heard of no swarms so far this spring. Bees came through the past winter with very little loss in this locality.

Flattering Prospects.—C. G. Ridout, Hutchinson, Minn., on May 25, 1889, says:

We are having splendid weather here now, and crops are looking well—plenty of rain, but none too much. We had a hard frost last Wednesday night, that killed some garden vegetables, and froze potatoes half to the ground. It is warmer again now, however, and I think that frost will be no more this spring. Bees are swarming, and prospects for a good honey harvest are flattering.

Bees in a Starving Condition.—C. Theilmann, Theilmanton, Minn., on May 25, 1889, says:

We are having cold, cloudy weather, which is bad for the bees. As far as I can learn, they are in a starving condition. I have fed over 700 pounds of sugar already, and there is no sign for much honey to come in for 2 or 3 weeks yet.

Too Cold for Honey-Secretion.—T. F. Kinsel, Shiloh, O., on May 26, 1889, says:

Colonies are very strong in bees. They are working on locust blossoms. Raspberries will soon be in blossom. It has been too cold lately, but it may change in a few days to hot enough. My expectation is big, on this year's prospects for surplus honey. Is it not a pity—at least on some things—that our "foresight" is not better?

Bad Weather for Bees.—A. Sherington, Dutton, Mich., on May 27, 1889, writes:

We have mixed weather for the bees. It was rather cold last week, as we had four frosts, and on the night of May 21, we had a snow-storm. The corn that is up is badly frozen, and the garden-truck is also frozen; but white clover looks well, and commenced to bloom about one week ago. There have been a few swarms here, but this weather will put them back again. Young colonies will starve, if not fed. My bees came through the winter in first-class condition. I put 12 colonies into winter quarters in 1888, and took 11 out this spiring, one having died with the diarrhea. Linden is full of buds, but the leaves are nearly all eaten off.

Catalogues for 1889 are on our desk from—

Horace Banks, Reisterstown, Md.—4 pages—Scotch Collies.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

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Will be CLUBBED with the AMERICAN BEE JOURNAL, at the low price of $1.25, postpaid.

This magnificent Art Portfolio is in size just 11x14 inches, and besides a picture of Gustav Dore, the great French Artist, it contains the following beautiful engravings: Expulsion from the Garden of Eden—Entering the Ark—Noah Cursing Ham—Samson and Delilah—Ruth and Boaz—Death of Saul—The Judgment of Solomon—Daniel in the Lion's Den—Daniel Confounding the Priests of Baal—The Nativity—Christ Healing the Sick—Sermon on the Mount—The Disciples Plucking Corn on the Sabbath—Jesus Walking on the Water—The Agony in the Garden—Death of the Pale Horse. Seventeen handsome full page plates under one cover.

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To any one sending us, direct to this office, **Five NEW Subscribers** for one year, with $5.00 (renewals not to count), we will *present* this beautiful Atlas, by mail, postpaid:

This ATLAS contains a large scale Maps of every country and civil division upon the face of the Globe.

It is beautifully illustrated with colored diagrams, showing the wealth, the debt, the civil condition of the people, chief productions, the manufactures and the commerce, religious sects, etc., and a superb line of engravings of historical interest and value, together with many new and desirable features which are expressly gotten up for this work—among which will be found a concise history of each State.

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Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages).....	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Simmins' Non-Swarming System, and the AMERICAN BEE JOURNAL for one year, for $1.25. The subscription to the BEE JOURNAL may begin now.

Scientific Queen-Rearing, as practically applied; being a method by which the best of queen-bees are reared in perfect accord with Nature's ways—by G. M Doolittle, of Borodino, N.Y. 176 pages.

In this book Mr. Doolittle details the results of his experiments in rearing queen-bees for the past four or five years, and is the first to present his discoveries to the world. It is published in time for every progressive bee-keeper to test the various discoveries which it details, during the present season. Send all orders for the book to this office. Price, $1.00, postpaid. The usual discount to dealers in lots of 10 or more.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble.

Money in Potatoes, by Mr. Joseph Greiner. Price, 25 cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Honey and Beeswax Market.

DETROIT.

HONEY.—Best white 1-lbs., 14@15c. Market is dull and lower, but not overstocked. Demand slow.
BEESWAX.—22@23c.
Apr. 30. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—We quote: White 1-lbs, 15@16c.; dark, 10@12c.; California white 2-lbs., 11@12c.; amber, 10@11c. Extracted, white, 7@8c.; dark, 5@6c. Our market is in good condition for the new crop.
BEESWAX.—20c.
May 11. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Extracted, in barrels, 6½@6¾. Excellent demand for clear, bright in barrels. Dark, 5¾@6c.
BEESWAX.—Scarce at 23c. for prime.
May 22. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—Market is bare of comb. We have not seen honey cleaned out so well for several years. As to extracted, there is no white clover, basswood or buckwheat in this market. New Southern honey is arriving freely, and brings from 65@70c. per gallon. New Florida orange-bloom honey brings from 7½@8c. per lb.
BEESWAX.—Scarce, at 26½@27c. for good.
HILDRETH BROS. & SEGELKEN,
May 24. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote: Best white clover 1-pounds, 18@20c.; best 2-lbs., 17@18c. Extracted, 8@9c.
Sales have been checked a little on account of maple sugar and syrup being so plentiful. Sales of honey are very slow.
May 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 11@16c. Demand is fair. Arrivals are plentiful of new comb and extracted honey from the Southern States, where the season had a most prosperous beginning.
BEESWAX.—Demand is good—20@24c. per lb. for good to choice yellow, on arrival.
May 21. C. F. MUTH & SON, Freeman & Central Av.

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Brantford, Ont., Canada.

Cheap Extracted Honey.—We have a keg of DARK HONEY, weighing 164 pounds, net, suitable for feeding to bees, which we will sell at **6 cents** per pound, delivered on the cars here.

Advertisements.

NOW Ready to Mail.—TESTED ITALIAN QUEENS, $1.00. Frank Benton's Imported Queens, $4 each. Address, S. F. REED,
23D4t NORTH DORCHESTER, N. H.

A TWO-CRATE CHAFF HIVE

FOR $2.75. Send for Price-List and terms to Agents. J. A. ROE,
23Atf UNION CITY, IND.

CARNIOLAN QUEENS.

I HAVE been importing and breeding this race exclusively since 1884. My orders have each year more than doubled. Send Postal for Descriptive Circular, or $1 for a Choice Untested Queen; $5 for ½-doz.; $5 for Benton's best grade Imported Queen.
S. W. MORRISON, M. D.,
23A8t OXFORD, Chester Co., PA.
Mention the American Bee Journal.

My 21st Annual Price-List of Italian, Cyprian and Holy-Land Bees, Queens and Nuclei Colonies (a specialty); also Supplies—will be sent to all who send their names and addresses. H. H. BROWN,
17Dtf LIGHT STREET, Columbia Co., PA.

Useful Scales

The Union or Family Scale.

This Scale has steel bearings, and it weighs from ½-ounce to 240 pounds. Price, with a Single Brass Beam, as shown in the illustration, $3.00. With Double Beam for taking the tare, $3.50.

The Little Detective Scale.

This little Scale is made with steel bearings, and a brass Beam, and will weigh accurately ¼-ounce to 25 pounds. It supplies the great demand for a Housekeeper's Scale. Prices:

Single beam, no scoop	.....	$2.00.
" " tin "	.....	2.50.
Double " no scoop	.....	3.00.
" " tin "	.....	3.50.

☞ All orders filled promptly.

THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL.

Tested Italian Queens

$1 EACH. Untested, 75c. each, or 3 for $2. Three-frame Nucleus, with a Tested Queen, $3. 75 cts. per lb. for Bees.
22Atf I. R. GOOD, Nappanee, Ind.
Mention the American Bee Journal.

TANSY PILLS!

Safe, Certain and Effectual. Particulars 4c. WILCOX SPECIFIC CO., Phila., Pa.
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Mention the American Bee Journal.

BRIGHT ITALIAN Bees and Queens, Bee-Hives, Sections, Foundation, etc.
12A1y H. H. RUETER, Baxter Springs, Kan.
Mention the American Bee Journal.

EVERY BEE-KEEPER SHOULD TRY
THE SUCCESS HIVE!
TRUE TO ITS NAME!

SAFE winterer, easy in manipulation, durable, cheap, and, for large yields of honey, is unsurpassed.

Sections, Section-Cases, Comb Foundation

and all Apiarian Supplies, at greatly reduced prices. Send for New Circulars, free.
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(Successors to S. Valentine & Sons),
17Dtf HAGERSTOWN, Wash. Co., MD
Mention the American Bee Journal

PLANT SWEET CLOVER.

WHEN it once gets a start, it furnishes permanent bee-pasturage.

WHERE IT GROWS

there is never a season of total failure of the honey crop, and the honey is equal, if not superior, in flavor and appearance to white clover honey.

We can supply the seed at the following prices: $6.00 per bushel; $1.75 per peck; 20 cents per pound—by express or freight. If to be sent by mail, add 10 cents per pound for postage. (60 pounds in a bushel).

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ITALIAN Queens, Tested, $1.25.; Untested, 75c., 3 for $2. Circular of Bee-Supplies, &c. *free.* JNO. NEBEL & SON, High Hill, Mo.
20Atf

WOOD'S ITALIAN QUEENS.

I WILL now ship by return mail, **Selected Tested Italian Queens,** of 1888 rearing, for $2 each. These are my finest Queens, and are thoroughly tested, and are suitable for Mother-Bees. After June 1st, **Warranted Queens,** 75 cts. each; or $8 per dozen. Safe arrival guaranteed. If you want good Queens purely-mated, without delay, send me your order. None but Italians. **3-frame Nuclei,** in the Langstroth or Cary frames, with good Queens, $3 each. Address,

JAS. F. WOOD,
22A2t NORTH PRESCOTT, MASS.
Mention the American Bee Journal.

WANTED,

AT Plattsmouth, Nebr., to sell 3-frame (size 9½x17½) Nucleus Colonies of ITALIAN BEES, with Queens, at $2.50 each—brood in 2 frames or more—¾ to 1 lb. of Bees. J. M. YOUNG,
21Atf Box 874, PLATTSMOUTH, NEBR.
Mention the American Bee Journal.

GIVEN AWAY,
First-Class One-Piece Sections!

THE above is not true, and is only done to attract attention; but it is true that I am selling the Whitest and Best No. 1 **One-Piece Sections** made—at $3.00 per M; No. 2, $2.00 per M.
Address, J. M. KINZIE,
20A1y ROCHESTER, Oakland Co., MICH.

A New Book on Bees, and Dadant's Comb Foundation. See advertisement in another column.

Eaton's Improved **SECTION-CASE.** BEES AND QUEENS. Send for free catalogue. Address FRANK A. EATON,
3D17t BLUFFTON, OHIO.
Mention the American Bee Journal.

PATENTS THOS. P. SIMPSON, Washington, D. C. No atty's fee until Patent obtained. Write for Inventor's Guide.
17D6t
Mention the American Bee Journal.

Send for Early Queens
TO J. N. COLWICK:

1 Tested Italian, before May 15,			$2.25;	after,	$1.75.
3 "	"	"	6.00;	"	4.50.
1 Untested "	"	"	1.00;	"	.90.
3 "	"	"	2.75;	"	2.50.

For 1-Frame Nucleus, with any Queen add, $1.00.

☞ I give a discount of **10** per cent. on Orders booked for the next 20 days. Safe arrival and satisfaction guaranteed. Send for Price-List.
9D8t NORSE, Bosque Co., TEXAS.
Mention the American Bee Journal.

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD.
PUBLISHED BY
THOS. G. NEWMAN & SON,
CHICAGO, ILL.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. June 15, 1889. No. 24.

EDITORIAL BUZZINGS.

The National Flower of America is now receiving attention. Bee-keepers should vote for the Golden-rod.

England boasts of glorious weather just now, with heavy bloom everywhere, and the bees are gathering honey rapidly. The *Record* is rejoicing over the fact.

The Western Apiarian is a new bee-paper published in Placer county, Calif. It contains 16 pages and a cover; and is published monthly at 50 cents a year, by S. L. Watkins and F. E. McCallum.

The Present High Price of Sugar will help the price of honey, if it continues a little while longer. Honey may be used to advantage in place of sugar—nay, it is vastly superior to it for preserves, and in making many kinds of cake, palatable summer drinks, as well as in cooking. Let bee-keepers see to it that it shall be thoroughly introduced, and its use secured in every available manner, both by housekeepers and manufacturers of mead, candies, pastry cooks, etc.

A Painted Bee.—Mr. W. F. Kennecott, Lax, Wis., sent what he called "a queer looking bee taken from an Italian colony." Prof. Cook remarks thus concerning it:

The bee sent by Mr. Kennecott is simply covered with red paint. I had always supposed that bees had too good sense to practice these questionable methods. But this is a genuine worker bee, and the brilliant carmine seems genuine. Either some one has been trying experiments, or else this bee got into a tight place with paint all about.

An Appalling Calamity has overtaken the inhabitants of Conemaugh Valley, Pa. On Friday afternoon, May 31, the dam gave away up in the mountains, and a flood of water rushed down the valley, sweeping everything before it. The villages were destroyed—buried beneath 40 feet of water. Over 13,000 persons were drowned. There was no time for escape. Before the irresistible deluge houses, stores, factories, public buildings were torn to fragments and swept away.

The stone railway bridge below the city, on the Conemaugh river, resisted the pressure of the flood; its arches became choked, and there a huge mass of *debris* accumulated. The many hapless ones on the rafts, and in floating houses, on that angry flood, were burned in the fire, which ignited from the fires and lamps in the houses. The horrible torture of that doom is appalling.

An unknown man rode down the valley, mounted on a big bay horse, just before the flood, shouting, "Run for your lives! Run to the hills!" The people were awe-stricken. But few comparatively fled, for in a few moments there came a cloud of ruin down the broad streets; down the narrow alleys, grinding, twisting, hurling, overturning, crashing, annihilating the weak and the strong! It was the charge of flood wearing its coronet of ruin and devastation, which grew at every instant of its progress. On and on raced the rider, and on and on rushed the wave! Dozens of people took heed of the warning, and ran up the hills. Poor, faithful rider! It was an unequal contest. Just as he turned across the railroad bridge, the mighty wave fell upon him, and horse, rider and bridge all went out into chaos together.

The whole country is touched in sympathy, and from East, West, North and South financial aid, food and clothing are pouring in to the relief of the stricken inhabitants left in the valley. Our people are noted for giving full-rein to the most generous promptings of practical sympathy. This gives strength to our confidence in humanity.

Sweet Clover.—Mr. C. H. Dibbern talks about sweet clover, in the *Western Plowman*, and gives his way of management in these words:

This year our three-acre field of sweet clover will be no good, that is for the bees, as we have sown it in oats. I have experimented a good deal in the past ten years with sweet clover. How to get a good stand of clover every year has been the problem, and I have come to the conclusion that it cannot be done. I think I have hit on a better plan.

I think that no biennial plant can be made to flower on the same piece of land every year. In the case of melilot or sweet clover it is, perhaps, best to sow it with oats early in the spring, and that season a crop of oats will be harvested. After it is cut the clover will take possession of the land. The next season it will simply be immense, and grow taller than one's head, and blossom profusely. It will so shade the ground, however, that nothing else can grow, even the seeds scattered by the sweet clover will germinate during the fall. Now it is evident that nothing for the bees will be produced the following year, and the use of the land would be wasted.

I have decided to utilize the land during these off years by going over it with a disc harrow and thoroughly cutting up the stalks which also works the soil up nicely by going over it several times, and again sowing it with oats. Of course the ground is covered with the sweet clover seed, and will take care of itself.

If it is desired to have a crop of sweet clover every year, two pieces of land will be necessary, and keeping it alternately in oats and clover. Land treated in this way, if ever so poor, I believe, will be greatly benefited, as the great quantities of rotting stalks are about as good as a coating of manure.

Foul Brood among bees, in England, seems to be rampant. The *British Bee Journal* for May 23 has this to say about its spreading, and the negligent stupidity of those who are responsible for its ravages:

This appears to be one of the perpetual troubles of bee-keeping. The chief difficulty lies in the fact that although all the bee-keepers save one in a district may take every precaution to eradicate the disease, that very one, either by his negligence or stupidity, may again poison the whole district. Can any of our readers say whether it is a legal offence to sell bees suffering from foul brood, even when no guarantee is given?

Much obloquy has been cast upon expert work on account of some unprincipled men ignoring even the most rudimentary safeguards. We say most emphatically that it is unjust to thus condemn experts as a body for the sins of the few, but we do desire some means of so dealing with the black sheep, that they may for ever afterwards be prevented from demoralizing that which is a most honorable calling when properly conducted. We have reason to believe that some of these black sheep positively conceal the fact of foul brood being in existence lest they might lose custom. Was there a more short-sighted policy? Could the committee of the British Bee-Keepers' Association consider this question in all its bearings?

Fruit Bloom.—Mrs. L. C. Axtell, of Roseville, Ills., in the *Farmers' Review*, remarks as follows about the bees, and fruit blooming all at the same time:

Since fruit-trees have been in blossom, the weather has been so cool and cloudy that most of the time bees have gathered very little honey, and as bees at this time of the year consume large amounts of honey in brood-rearing, many colonies will run out of stores unless fed. A few pounds of syrup fed now will pay the bee-keeper in large returns in a short time. Use the first time or two, sugar syrup, then add cheaper syrup as the bees learn to take it. This year is the first time I ever noticed the peach, cherry, and apple trees in bloom at the same time.

Peach Honey.—Mrs. L. Harrison remarks thus in the *Prairie Farmer* about the honey gathered this spring from peach blossoms:

The bees had a rare treat this spring—peach honey. There has been no bloom on peach trees in this locality since 1883, and it was a welcome sight. An older settler said to me lately: "I well remember the time when peaches were so plenty in Peoria that boys wouldn't steal them; nice ripe peaches would fall from the trees to the sidewalk, and no one cared to pick them up."

GLEAMS OF NEWS.

The Book.—"Doolittle on Queen-Rearing," has received a thorough review in several of the publications devoted to bees. The *Bee-Keepers' Review* gave a digest of the contents of the book, beginning with these words:

Queen-breeders have no cause for complaint in regard to the supply of literature devoted to their delightful branch of apiculture. A few years ago, Mr. Alley, one of our oldest queen-breeders, published a book largely devoted to the rearing of queens; the present year has witnessed the birth of the *Queen Breeders' Journal;* and now that old veteran, G. M. Doolittle, has written a book of 176 pages, devoted wholly to "Scientific Queen-Rearing." The price is $1.00; and when we say that the publishers are Thomas G. Newman & Son, Chicago, Ills., no more need be said in regard to the typographical neatness, and general make-up of the book. It contains twenty illustrations, besides the best-looking picture that we have ever seen of its author.

Upon our desk lies a copy of this book, just fresh from the press; and all are invited to step up and look over our shoulders.

Mr. Doolittle says that he has secured, on an average, $500 per year in rearing and selling queens; and, while he does not say whether he would have made more money had he devoted his whole time to honey production, he does say, in substance, that the queen business is too fascinating to be abandoned. We know exactly how he feels.

After subjecting every chapter of the book to a thorough examination, and differing from the author in some few points, Mr. Hutchinson concludes with the following:

There are, of course, a great many points that it is impossible to notice, even in so extended a review as this (*all* details are necessarily omitted), and we will close by most heartily urging all queen-breeders to read the book. Address the publishers.

Gleanings in Bee-Culture criticises Chapter III, on "Nature's Way *versus* Man's Ways," and avers that "friend Doolittle deviates considerably from nature when he makes artificial cells, fills them with royal jelly, and finally deposits therein an egg or larva. We do not deny but that first-class queens, and good queens, can be produced in this way; but is it altogether in accordance with *nature's* way?"

Friend Root then sums up Chapter VII, around which all the chapters centre, and the author's new method of queen-rearing, and the making of his queen-cups, etc., and says:

On page 50 is a nice engraving representing a lamp, above which is a small tin vat for holding melted wax. Beside the lamp is a cup of water. Three little sticks of wood (old rake-teeth) are lying upon a little block of wood. These teeth are taken from a common hay-rake, the teeth being whittled and sandpapered so as to be as near the shape of the inside of the queen-cell as possible. Three of these sticks are dipped successively into a little of the melted wax, above the lamp. The film is cooled in the cup of water, and is then dipped again. The operation is repeated a number of times, until the cell of wax has the proper thickness, when it is slipped off from the end of the rake-tooth, and more cells are made in like manner. After a sufficient number have been made, the end of the cell, or the end opposite from which the queen hatches, is stuck on to a little strip of wood by means of melted wax. After a dozen cells are fixed, this strip of wood is fastened horizontally into an old comb, the space below the strip being cut out so as to allow plenty of room for the cells. On page 56 is a nice engraving showing the cells when fully capped over by the bees.

Friend Root begins his review with this compliment to the publishers:

A neat little work of 176 pages, bearing the above title, fresh from the publishers' hands, Messrs. Thomas G. Newman & Son, has just come to hand. The work is well printed, and, as usual, comes up to the standard of Messrs. Newmans' publications.

And in conclusion makes these remarks concerning it:

For full particulars, as also a discussion of many important matters connected with queen-rearing, we will refer you to the work itself. The book is full of valuable hints, and will be worth all it costs to any queen-breeder. Price, $1.00 by mail.

The *Canadian Bee Journal* speaks of the book as follows:

"Scientific Queen Rearing" is the title of the latest addition to apicultural literature, by G. M. Doolittle, than whom no one is better qualified to speak on this subject. The volume consists of 176 pages, is well bound and printed, and as a frontispiece has the photograph, which, by the publishers' permission, we are enabled to reproduce.

The first chapter details his first struggles in learning the art of bee-keeping, and though Doolittle senior kept bees on a small scale, his son was not stricken with the bee-fever until confined to the house with a gashed foot, when he devoured all the bee-books in reach.

On the importance of good queens, Mr. Doolittle writes strongly, for, as he says: "Upon no other one thing does the honey part of the apiary depend so much as it does upon the queen." To show what can be done in having all the queens in an apiary as near perfection as possible, he notes on page 17, that the "variation of yield of honey from different colonies has grown less and less, till, at the present time, the average yield of honey from each colony in the apiary is very nearly alike, while fifteen years ago some colonies would give 75 per cent. more honey than would others."

The finest queens are reared at a time when the old queen is not destined to live much longer, and in the writer's opinion these are the superior of those reared under the swarming impulse. Says our author: "I have no hesitation in pronouncing queens thus reared of the highest grade," and our experience is the same.

Bearing this important fact in mind, Mr. Doolittle, with that perseverance and continued application for which he is noted, studied for six long years to find a plan for rearing queens of quality. That plan he has now perfected, and this valuable book tells just how it is done, in language so terse and simple that any apiarist can follow it successfully.

Then follows a statement of the contents of the several chapters.

The *American Apiculturist* has this to say about it:

The work is nicely printed and bound. Until we can find time to look it over, the only opinion we can give of its value is the reputation of the author. When one can get nearly two hundred pages of bee-matter from the pen of such an author and bee-keeper as Mr. Doolittle, our advice is to lose no time in securing the work.

The *Canadian Honey Producer* gives it this notice:

DOOLITTLE ON QUEEN-REARING.—This work written by G. M. Doolittle, and published by Thomas G. Newman & Son, Chicago, Ills., is a credit to author and publishers. It is written in Mr. Doolittle's most pleasing style; modestly and simply does the author give us the results of his long and extensive experience. Any one wishing a book upon this branch of apiculture will do well to secure a copy.

Honey Statistics.—Under this heading, *Gleanings* for June has given six questions and several answers from persons in every State, showing the present condition and future prospects. The questions are introduced, answered and commented upon thus:

We herewith present our first installment of statistics for 1889. Our correspondents are located in such a way as to cover the entire United States. The average date at which the statements are rendered is May 10. The questions to which they reply are as follows:

a. What per cent. of your bees have wintered?

b. What per cent. of the bees in your locality do you estimate have wintered?

c. What size of brood-frame is used most largely in your locality?

d. What frame do you prefer?

e. What per cent. of an average crop of honey has been secured in your locality up to date, as nearly as you can estimate?

f. What are the prospects for a honey crop this year?

ANSWERS SUMMARIZED.

A summarized averaged statement for the entire United States, we find stands as follows:

a. Of the bees owned by the special reporters, 91⅓ per cent. have wintered.

b. Of the bees in the localities of the reporters, 83 3-20 per cent. have wintered.

c. Seventy-five per cent of the localities reported are using the Langstroth frame exclusively, and the others use odd sizes, no one frame in particular.

d. The frame used by the reporters themselves is about the same as stated in *c.*

e. Where honey has been coming in, a full average has been secured up to date.

f. The prospects throughout the United States are universally good—never better.

Now let us go back and see what the statistics mean. To question *a* we find the average of 91 per cent. is considerably better than the average for about the same date for last year, the ratio standing 91 to 84; but remember this rather has reference to those who reported on *their own* bees. The percentage of loss for the *localities* (bee-keepers, good, bad, and indifferent), is also much less this year—the ratio standing 17 to 33 in favor of 1889.

Observe that the reporters (who are in most instances the best and most successful bee-keepers we could select for the localities), have had much better success than the mediocre bee-keepers—those who cannot afford to own a good text-book or take a good bee-paper. The first-mentioned class lost only 9 per cent.; the last mentioned lost 17 per cent. This point was clearly brought out in the statistics for last year.

The answers to question *c* prove conclusively that the Langstroth frame is the universal standard throughout the length and breadth of our country. There are three times as many Langstroth frames, according to the reports, as all the rest of the frames put together, odd sizes included.

The ILLUSTRATED HOME JOURNAL will be clubbed with the American Bee Journal and both mailed to any address in the United States and Canada, one year, for **$2.00.** The Contents of the June Number are—

Poem :—"The Long Peace Since 1865".... 75
Memorial Day ; an Address by Bishop S. W. Fallows..... 75
Illustrations: Memorial Day—The Call to Arms—In the Battle—Wounded—Dead—The Widow's Tears—Decorated Grave.
Poetry :—"Grand Army Emblems"..... 76
Outside the Lines ; A Memorial Day Story by Capt. George L. Kilmer..... 77
Illustrations : "Miss Elwood Drew a Chair in Front"—"Dunno, Sah."
Chauncey Depew's Eloquent Sketch Ten Years Ago..... 78
The Kentucky Brothers ; an Incident of the Civil War..... 80
Illustration : Meeting of the Brothers in Deadly Combat.
Our Young Folks :—How to Succeed in Life—by George W. York..... 81
Illustration : Enjoying the Woodlawn.
Poetry :—"A Regret"..... 82
Good Readers ; Suggestions and Instruction for Old and Young..... 82
Poetry :—"The Boon of Sleep"—by John Andrews..... 83
The Challenge Accepted ; or, How Kate Clifford Won—Chapters III and IV. 83
June—(Full page Illustration)..... 85, 102
The House-Keeper ; by Lucy Langdon.—New Hampshire House-Keeping—Making Soap—Destroying House Insects..... 88
Poetry :—"Building a Mansion"..... 88
Poetry :—"Coming Home"—by Mahala B. Chaddock..... 89
Music :—Song, "Strew Flowers above the Noble Dead"..... 90
A Moment of Anger ; or, the Quarrel of Mr. and Mrs. Brownlow—Chapters V and VI..... 92
Illustrations: "Just as you Please"—The Young Lawyer Protested in Vain.
The Puzzler (Illustrated)..... 95
Woman and Home ; Training a Canary-Bird—Care of Children—Physical Culture—Earth's Angels..... 96
A Grecian Beauty (Illustration)..... 97, 102
Buttons—Interesting Facts about their Invention..... 98
Biographical :—Prof. A. J. Cook (Illustrated)..... 99
A Modern Romance :—"Rescued from a Lunatic Asylum"..... 100
The Latest in Jewels..... 100
Foundations of Fortunes..... 100
Woman's Wear..... 101
Electric Notes..... 101
EDITORIAL ITEMS :..... 102
June—Something for Everybody—A Grecian Beauty—A High-Toned Journal—Enjoying the Woodlawn Stream—Time Extended—Personal Gossip—Odds and Ends—Our Clubbing List—Notices to Agents—Our Premiums, etc.
MISCELLANY :—
Absent Minded Man..... 101
A Fertile Mind..... 95
A Noble Woman..... 101
Art Dealers of Paris..... 98
Chance for an American Girl..... 89
Economizing..... 101
How She Looks..... 82
How was it Done?..... 95
Invention of the Microscope..... 101
Knowledge is Power—But Not Money... 95
Lansing B. Mizner (Illustrated)..... 96
Life in Pizen Creek..... 100
Little Foresight..... 94
Novelty in Progressive Fads..... 99
Our Girls..... 98
Philadelphia Patience..... 98
Physical Culture for Ladies..... 80
Pneumonia's Victims..... 98
Points that have Puzzled People..... 79
Shrewd Widow..... 95
The difference..... 82
The Lime Kiln Club..... 79
The Nurse's Pride..... 98
Triplets in China..... 101
Wise Mother-Bird..... 101
Worth Remembering..... 80

BIOGRAPHICAL.

MR. T. S. BULL.

A face, familiar to those who attend conventions in and around Chicago, is presented to our readers in this issue of the AMERICAN BEE JOURNAL. It is that of Mr. T. S. Bull, of Valparaiso, Ind., who is an enthusiastic bee-keeper and extensive honey-producer. We have also secured the following account of his life, which will be read with interest by all :

Theodore S. Bull was born in Cayuga county, N. Y., on March 20, 1829.

MR. T. S. BULL.

When about four years of age, he went with his parents to Onondaga county, and in 1850 from thence with his parents to Porter county, Ind., where he still resides.

Mr. Bull was reared on a farm, and received a good common school education. He became interested in bees when seven or eight years of age ; and one day, upon hearing some older members of the family telling of a bee-tree having been cut, he learned where the tree was located, and after preparing a box, went in search of the bees. He secured about a quart.

Not knowing how to winter the bees, he was advised to bury them, as they would live without food. They all died. His interest survived, however, and grew with him. When there were bees in sight, he gazed at them as long as eye could see.

When he was about 16 years old, his father, seeing his great love for bees, bought a colony, and also about this time a patent hive, containing three brood-chambers, one above the other, all interchangeable. From this time until he removed from New York, he spent all his leisure hours in studying and examining the work of the bees.

Some two years after coming to Indiana, he saw a swarm of bees going into a hollow tree. He managed to secure them, and kept them in a box-hive, with fair success, until the fall of 1871, at which time he saw the movable-frame hive (called the "Cottage Bee-Hive"), and became very enthusiastic. He had the bees transferred the same fall—5 colonies during the forepart of August, and one colony in September. They all wintered successfully.

The next spring he purchased 3 colonies—the only ones he ever bought. In the fall of 1872 he had 17 colonies, which increased (never losing a colony in wintering), until he had nearly 100 colonies. Since that time his losses have been light. He now keeps about 100 colonies, which produce several thousand pounds of excellent honey annually. His honey being of the finest quality, it is exported to most of the Northern States, and is sold in all the home markets.

Mr. Bull is an energetic farmer, having a pleasant and commodious country residence, and a large farm, gained by industry and good management.

He was married on Sept. 20, 1855, to Mrs. Ann M. Mason. There were born to them ten children, seven of whom (five sons and two daughters) survive ; all but one are married, and, with his ten grandchildren, are living within a few miles of the paternal roof.

Mr. Bull is of medium size, of sanguine, nervous temperament, and fond of reading solid literature, especially that on bee-culture, of which class he takes the principal periodicals. He is a pleasant conversationalist, but has never had any taste for writing or composition.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

QUERIES & REPLIES.

Combs Filled with Pollen for New Swarms.

Written for the American Bee Journal

Query 635.—When the bee-keeper has combs filled with pollen (otherwise good combs), are they suitable to put into the brood-chamber for new swarms?—Ont.

Yes.—A. B. MASON.

Yes.—R. L. TAYLOR.

Yes.—MAHALA B. CHADDOCK.

Most assuredly, *very suitable*.—A. J. COOK.

They are as good as any.—P. L. VIALLON.

I think so.—C. C. MILLER.

Yes, if not moldy; but we would not want many such in a hive for a swarm. —DADANT & SON.

I never tried it, but if I had such combs, I would not hesitate to use them for new swarms.—G. L. TINKER.

I would use them in the brood-chamber for new swarms, if necessary.—J. P. H. BROWN.

Yes; but I never saw a comb *filled* with pollen. Did any one?—G. M. DOOLITTLE.

Really, I do not know. I have used them, but I am not satisfied that the practice is economical.—E. SECOR.

I should certainly use them, and I think myself fortunate in their possession.—J. M. SHUCK.

Yes; the bees will arrange the pollen to suit themselves.—C.H. DIBBERN.

Yes, the bees will soon clean out the old pollen.—MRS. L. HARRISON.

Yes, sir; the bees will take care of the old-pollen business.—JAMES HEDDON.

I would rather not use them, though a small quantity of pollen will do no harm.—J. M. HAMBAUGH.

Yes. If the pollen is dry and hard, it is well to soak the combs until it is soft; and much of it can be thrown out with the extractor. If soft, the bees will clean it out in a very little time.—M. MAHIN.

Take a tooth-pick and stir up as much of the pollen as you can, turn the comb over, and jar out as much of it as you can. Treat the other side the same, and the swarm will take it more quickly than they would gold!—WILL M. BARNUM.

If the combs have been well kept during the winter, so as to keep the pollen sound and sweet, as many as two such combs may be profitably used in each hive proposed for swarms. Such combs may also be profitably used in the brood-chambers of all good colonies in the early spring, instead of feeding meal, etc., as a substitute for pollen.—G. W. DEMAREE.

Most certainly they are, unless so completely filled with pollen as to give the queen no room. In this answer I assume that the pollen is all right as such. Ample cell-room must be given, both for eggs and storage.—J. E. POND.

Yes; they are suitable, and will be readily appropriated by the bees.—THE EDITOR.

Evaporating Water from Honey in the Cells.

Written for the American Bee Journal

Query 636.—Do bees evaporate water from honey or nectar, after it is placed permanently in the cell preparatory to sealing?—Nebr.

Yes.—DADANT & SON.

Yes.—J. M. HAMBAUGH.

I suspect that they do.—C. C. MILLER.

Yes, through the warmth of the hive. The honey evaporates continually till sealed, and often still later.—A. J. COOK.

Yes, and that same honey may absorb water, or evaporate it, after it is sealed.—JAMES HEDDON.

I think that they do. It seems clear that the evaporation does take place. The heat of the cluster appears to hasten it.—EUGENE SECOR.

If Mr. G. M. Doolittle has seen straight, and guessed correctly, we might say no; but I am "kinder 'fraid" he is mistaken.—A. B. MASON.

Yes, they do evaporate honey or nectar, just as you please to call it.—J. P. H. BROWN.

Yes, and may even after it is sealed, by means of the heat of the colony.—R. L. TAYLOR.

Yes. Instinct teaches them not to seal it till it is sufficiently evaporated to keep.—C. H. DIBBERN.

Yes. The heat of the hive keeps up evaporation as long as the air in the hive has access to the honey.—M. MAHIN.

Yes. The circulation that is kept up in the hive takes the moisture out of the honey as long as it is unsealed. —MAHALA B. CHADDOCK.

Chemically, honey and nectar are two different things. Nectar is principally cane-sugar, and contains no glucose; while honey is principally natural glucose, and contains no cane-sugar. Nectar is gradually transformed into honey by the action of formic acid, incorporated into it by the bees. At the stage referred to in this query, there may still be some of the sugar not entirely transformed, and, no doubt, there are both nectar and honey.—P. L. VIALLON.

Probably; but the bulk of all nectar carried in is co-operated from the bodies of the bees during the night of each day succeeding a flow of nectar. —G. L. TINKER.

Only as the heat from the hive does it, the same as would be done in a warm room. The bees do their part in evaporation by manipulation.—G. M. DOOLITTLE.

No more than is evaporated by the heat of a colony; honey sealed or unsealed, if kept in a warm room, gradually becomes thicker.—MRS. L. HARRISON.

Yes. The quiet humming so often heard upon hot days and nights, is caused by the bees circulating a current of air through the hive. Other bees stir the honey with their tongues or trunks.—WILL M. BARNUM.

Nectar, when first gathered, is quite thin and watery, and if then sealed up, would prove insipid, and speedily becomes sour from fermentation. Leaving the cells unsealed, allows the watery excess to evaporate, thus "ripening" (as it is called) the nectar, so that it becomes the honey of commerce.—J. E. POND.

I think not, except as they may contribute to this end, by their heat and the circulation of air produced in the hive by their movements. That the bees do *handle* the nectar and thus reduce it, I have no doubt. After the bee puts the honey into the cell to stay, and labels it with waxen caps, after-evaporation must be trifling.—J. M. SHUCK.

According to my observations, nectar in the flower varies in density, or what we call "thickness," in precise relation to the condition of the atmosphere at the time the secretion of nectar is going on; and when the nectar is quite "thin," the bees, guided by instinct bordering upon judgment itself, spread the nectar over as wide a comb-surface as they can command, to hasten evaporation; and as the nectar "thickens," it is transformed to the cells at the tops of the combs where the evaporation goes on till "thick" enough to be finally sealed. How much more rational are these practical facts than is the "digested nectar" theory! —G. W. DEMAREE.

Evaporation of the water in the honey takes place in the hive, and is caused mainly by the heat and air therein—and these are controlled by the bees.—THE EDITOR.

CORRESPONDENCE.

BEE-GLANDS.

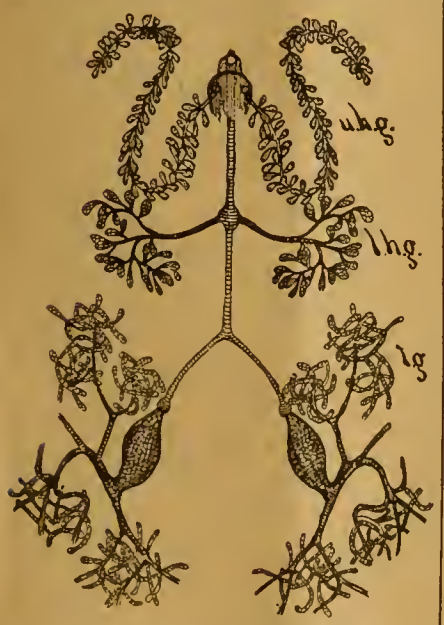
Some Facts about the Glands in Honey-Bees.

Written for the American Bee Journal

BY PROF. A. J. COOK.

A "gland" is an organ which takes elements from the blood of animals, or juices of plants, and forms from these a liquid called a secretion. Thus nectar in flowers is a secretion formed by the glandular cells of the blossom. Our own livers are glands which secrete the bile.

The essential structure of a gland is a membrane with epithelial cells on one side, and blood on the other. Such



The Glands in Bees, Greatly Magnified—Modified from Cheshire.

a simple structure is called a "membranous" gland. Such glands line all the closed cavities of the body, as the joints, the thorax, abdomen, etc. Often this membrane dips, and we have bags, pocket-like, or follicles. Such glands are called "follicular."

We see examples of follicular glands in the lining membrane of the mouth. Often these pockets are prolonged into tubes, and we have "tubular" glands, as seen in the lining coat of the stomach. Most frequently the tubes branch and re-branch, like a twig, and resemble a bunch of grapes (see Fig.), and are then known as "racemose" glands. All of our salivary or spittle glands are of this kind.

Our bees are in some respects the most remarkable of animals. Their larder, unlike that of most animals, is not filled with a single kind of food. They subsist on pollen—a very hearty nitrogenous food (a regular pork-and-beans diet), and on nectar, a highly-flavored dish of carbo-hydrates. To find these, they have a nose of exquisite performanee, situated in the antennæ, or horn-like organs attached to the head. To keep this very sensitive nose always clean, and to collect their food, they have a development of mouth organs and legs that are not surpassed even in the trunk of the elephant, or the still more marvelous human hand.

Again, in the rapid development of the bee from the egg to imago, and in the wondrous accomplishments of the queen—which lays often double her weight of eggs daily—we see what good food can do. To accomplish this, requires an alimentary system of very high development; and so, in the digestive tube of the bee, we have a perfection unequaled, I think, in the whole animal kingdom.

Passing those wonderful structures—the tongue, mouth, honey-stomach, stomach-mouth, and true stomach—let us study the position, structure and function of the several glands of bees.

There are three pairs of glands well developed in the worker-bees. The first pair (u. h. g. in the Fig.) are high up in the head, and consist each of a tube with appended follicles. They are packed within or between the compound eyes, and empty on the side of the floor of the mouth, just where their secretion could mix most readily with pollen, when eaten by the bees.

The next glands are the lower head-glands (l. h. g. of the Fig.). They are situated in the head, below the others, are racemose, and empty into a long duct, which comes from the third, or thoracic, glands. These latter (l. g. in the Fig.) are situated in the thorax, are also compound racemose, and, with the lower head-glands, empty just at the base of the tongue, where their secretions would surely mix freely with nectar as the bees gather it from the flowers.

Thus from the position of the mouths of these duets, no less than the admirable demonstrations of Schœnfield, we are very sure of the functions of all these secretions. The secretion from the first is undoubtedly to digest the pollen. These glands are rudimentary in the queen, and absent in the drones, which shows that the queen and drones are fed in part by the workers. These are best developed in the young workers. This is as we should expect. The young workers may be said to digest the albuminous food for larvæ, queen and drones; to digest this pollen, and form the rich jelly, they need the upper head-glands, and in them we find these glands the largest, and very active. It seems likely that the queen is not fed in winter. If this is true, it shows again the probability that bees when rather quiescent, need no more nitrogenous food than is already in their blood and tissues.

The probable function of the secretion from the other four glands, is to digest the nectar—to change the cane-sugar of nectar to the grape-sugar of honey; for all honey is completely or partially digested nectar. As honey is not all fully digested, we see why the drones and the queen need these glands. They take honey, and unless the honey is fully digested, they need this secretion to complete it.

I have little doubt but that the reason why some honey, like basswood, contains more cane-sugar, is because it is gathered very rapidly, and so the nectar is only partially digested. When bees gather from 10 to 30 pounds of nectar a day, as a colony often does from linden, we do not wonder that some undigested nectar is emptied into the cells. This also accounts for the great variation of honey in its composition—in relative amounts of cane and and grape sugar—and the reason why the ray of polarized light shifts so astonishingly from left to right, or *vice versa*; and why chemists are so likely to pronounce pure honey, adulterated.

There is another interesting fact connected with this subject, viz: When we eat cane-sugar, we have to digest it, while honey is already digested for us. I have heard good physicians say that some of our worst diseases of the liver and kidneys were, they believed, caused by eating cane-sugar; that such diseases were now more prevalent than of old, is because cane-sugar is more eaten now. If this suggestion is true, then in persuading people to eat honey we are lifting from the labors of their digestive organs—are causing the bees to do for them what the bees do for their own larvæ, and are so conserving the health of the people. Thus the inspired writer in commending honey, was wise beyond the science of his day.

Agricultural College, Mich.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

NEW YORK.

Report of the First Erie County Convention.

Written for the American Bee Journal
BY OREL L. HERSHISER.

At the call of Mr. Charles Penton, of East Aurora, N. Y., several prominent bee-keepers of Erie county assembled at his house on the afternoon of May 29, 1889, for the purpose of perfecting an organization.

Mr. Penton stated briefly the objects of the meeting, which were, to bring the members of the bee-keeping fraternity into closer relations for social and intellectual purposes; to impress upon its members the growing importance of the honey-industry; to bring more prominently before the public the healthfulness of a common commodity, both for domestic and manufacturing purposes; and to educate the honey-producers in the latest and most approved methods of the production of the purest and most delicious of sweets.

On motion by Hiram P. Hopkins, Charles Penton was chosen chairman of the preliminary meeting, and Mrs. Chas. Foville, Secretary.

After considerable discussion, it was decided that the society be known as the "Erie County Bee-Keepers' Association." The election of permanent officers for the ensuing year resulted as follows:

President, Charles Penton, of East Aurora; 1st Vice-President, Robert Meatyard, of Ellicott; 2nd Vice-President, L. D. O'Dell, of Protection; Secretary, Mrs. Foville, of South Wales; and Treasurer, Mr. S. S. Sleeper, of Holland.

A Board of Directors was selected as follows: T. S. Johnson, of Morilla; J. D. Havens and J. McMillan, both of East Aurora, and Ralph Evans, of Brant.

By special resolution, Orel L. Hershiser, of Big Tree Corners, was chosen special correspondent. The yearly dues were fixed at 50 cents per member, by the payment of which all bee-keepers, and others interested in bee-keeping, may become members. Ladies were exempted from the payment of dues.

Orel L. Hershiser was elected a delegate to represent the Association at the International Bee-Keepers' Association, to be held at Brantford, Ont., Canada, on Dec. 4, 5 and 6, 1889.

After a vote of thanks to Mrs. and Miss Penton, for their generous hospitality, the new-born association adjourned to meet in the village of East Aurora. N. Y., on June 15, 1889.

Big Tree Corners, N. Y.

THE BUTTERCUPS.

Written for the Farmers' Home
BY NELLIE F. O'NEILL.

They laugh and dance all through the day,
They nod and smile in winsome way,
No other flowers are half so gay—
The merry-hearted buttercups.

Atop the verdant hill they dwell,
Adown the grassy slope as well;
They lift their heads within the dell—
The golden-crested buttercups.

They stand beside the river deep,
And at their shadows gayly peep;
They smile upon the refuse heap,
The lowly-hearted buttercups.

The mansion's lawn they scatter o'er,
Like bits of gold on emerald floor;
They blossom by the beggar's door—
The simple-hearted buttercups.

They 'fore the grand cathedral wave,
The prison yard in sunshine lave;
They nestle on the baby's grave—
The tender-hearted buttercups.

They glow and glisten everywhere,
In city parks, in meadows fair.
Ah! well their regal crowns they wear—
The kingly-hearted buttercups.

BEE-SMOKERS.

The Best Kind of Fuel to Use in Bee-Smokers.

Written for the American Bee Journal
BY T. F. BINGHAM.

On page 230 is a query on this subject, and the answers to the same. I was much interested in them, as an interested party, and also as having experimented considerably with various kinds of fuel, etc.

The query, while one of a specific kind, does not specify in what smokers the fuel is to be used. This feature makes all imaginable difference—so far as the facts are concerned—and precludes the possibility of the real value of answers. Generally the answers seemed to indicate that the correspondents used direct-draft smokers, as sound stove-wood and also rotten wood was regarded as valuable.

If the querist will bear in mind that none of the "cold blast" smokers have draft sufficient to burn sound wood, the answers will be plainly misleading, if applied to them; but if to the direct-draft smokers, no confusion will occur, as almost any kind of material will burn in them.

While rotten wood is valuable as a quick means of kindling a sound-wood fire in the direct-draft smokers, it is much more trouble to control and keep burning steadily than sound stove-wood. The sound wood also makes a much stronger smoke; *i. e.*, it is not *steam* and air mixed, but clean, strong, pungent smoke, containing very little creosote, and freer from condensation. Especially is this true if the stove-wood is placed in the sunshine, on sunny days, to dry it perfectly. It cannot be too dry, nor dried too often. It does not burn faster for being dry, neither slower. With long, dry sticks, the direct-draft smoker is simply a base-burner—that is, sound wood burns only at the bottom, close to the grate, and this is one of several valuable features peculiar to sound wood.

Here it may be well to specify a weakness or two incident to rotten wood. One of them is, that it does not last long; the reason why it does not is, that it takes fire all over, and so, while yielding a cloud of smoke and steam, puts the operator to the needless trouble of refilling so often.

Of course, if you have a smoker in which only rotten wood and rags can be made to burn, the question of fuel decides itself. On the contrary, if your smoker will burn anything combustible, you have a wide field to select from, and convenience in obtaining may be to you the feature of all others determining which is best.

I trust that the above may aid in the convenience and comfort of selecting bee-smoker fuel.

Abronia, Mich.

CANADA.

Report of the Haldimand, Ont., Convention.

Written for the American Bee Journal
BY E. C. CAMPBELL.

The Haldimand Bee-Keepers' Association met at Nelles' Corners on Tuesday, May 28, 1889. The minutes of the previous meeting were read and confirmed.

The President read a number of postal cards relative to securing a lecturer for the meeting, and the reasons why one was not secured.

Best Package for Comb Honey.

The President said that the first thing was, to get the honey in pound sections, and well finished in the hive; they should then put the sections in cases holding a dozen, glassed on both sides, so that the sections can be seen without opening the case. He also said it was important that the sections should be all of good quality, both front and back.

Best Package for Extracted Honey.

The President said that for shipping in large quantities the 60-pound tin-can was the best he had used; and for small packages, the 10-pound pail was preferable. The pail was useful after the honey was taken out; and for re-

tailing in stores, he preferred the pint glass-jars, and jelly-glasses with screw tops.

Mr. Kindree agreed with the President as to the packages for shipping honey, but for show purposes he preferred glass. Several other members expressed themselves in similar terms.

Eighteen members present reported an aggregate of 445 colonies last fall, and 397 colonies this spring.

It was decided to make the same offer as last year with reference to prizes to be offered for honey and apiarian supplies at the Cayuga, Jarvis and Rainham shows, and delegates were appointed to attend to the matter.

The next meeting will be held at Fisherville, on the last Saturday in August, 1889.

E. C. CAMPBELL, *Sec.*

BEE-HIVES.

"The Coming Hive" is Already Here and in Use.

Written for the American Bee Journal

BY J. E. POND.

Mr. J. W. Tefft, in his article on "The Coming Hive," on page 346, gives some tiptop points, and two paragraphs on page 348, from the article, are so much to the point, that I quote from them as a text. He says that the coming hive should be "constructed with the view of giving the queen full power of reproduction, and hereby hangs the whole 'law and gospel' in bee-keeping." Again, he says: "Keep the bees in one strong colony until after the honey-harvest," etc.

Now in the above, Mr. Tefft hits the nail on the head squarely; the point he makes is correct, and cannot be gainsaid or denied. The point, however, remains—what is the size of hive that will accomplish just this? Do different localities require different sizes? To the latter question I unhesitatingly say, No! and, further, that were it not for an evident desire on the part of many to be "cocks of the walk," we should have less bother in regard to size of hives, and hear less in regard to this, that or the other claim of originality or improvement.

The matter of protected hives need not be considered in this connection at all, as any size of hive can be protected by chaff or dead air-spaces, in its manufacture, or by any outer covering when needed, if needed at all; the point simply being what interior size of hive will best accommodate the varying requirements of a colony of bees with an ordinarily prolific queen, during a given or any season. The discussion on this point has taken a wide range in the past; and at times, I am sorry to say, some ill-temper has been displayed, but certain *proofs* have been set out in the way of statistics, that must stand as such for all time.

Now what is the evidence? The ordinary "Langstroth hive" (and I now speak of the interior dimensions of that Langstroth hive that carries a frame that will take in length four 4¼x4¼ sections, and being 14¼ inches wide), has given the best general results, and to-day stands unrivalled as an "all-purpose hive." It is large enough for any queen; it can be contracted to any required size; it can be made double-walled, filled with chaff or not, or can be protected with an outer covering, as desired; and it is free from any patented complications. Now what more can be desired? I have used this hive for years; none has been found better, and I have tested about all; none can be found that in the hands of the ordinary bee-keeper, will prove more profitable, or practicable.

I speak with positiveness on this subject, for the proofs sustain me; and till statistics show differently from their present aspect, I shall stick where I now stand.

North Attleboro, Mass.

DRONES.

The Rearing of Drones from Pure Queens.

Written for the American Bee Journal

BY L. STACHELHAUSEN.

On page 260 is reproduced some parts of Mr. Doolittle's new book, in which is stated the idea that, "a pure queen, however mated, must produce a pure drone of her own variety," is a theory only derived from the fact that a virgin queen can lay eggs, which will produce drones; and he says that the drones of a mismated queen are not pure at all. Although Mr. Alley and some other bee-keepers are on his side, nevertheless it is a mistake.

That those drones are pure, is no mere theory, but a proven fact. When Dr. Dzierzon introduced a single Italian colony into Germany, he reared at once many queens, which were of course mated with German drones. In the second year he used the drones of these queens exclusively. *He never received another queen*, nevertheless his Italian bees remained pure, and were even improved in color and working-qualities, by careful selection. For years he always received the first premium for his queens in competition with queens directly imported from Italy. Many other experiments have proven that those drones are pure.

Mr. Doolittle explains at some length that he is willing to prove his view. I may ask here, has he ever made this experiment? If we take into consideration that he sells Italian queens, it does not seem probable that he kept only black drones in his apiary. He may have experimented in an out-apiary, but how far was this from any other colony? What certainty have we that not a drone of any other colony mated with one of his queens? The way in which Mr. Doolittle recommends to have drones of a certain race only in an apiary, will do very well for practical purposes—for rearing queens for the market; for a large percentage of the queens will be purely mated; but for an experiment of this kind, it is much too uncertain. Somewhat better is the so-called "Koehler's method," but hereby too some few queens may be mismated.

Italian bees have been introduced in this country for many years, and consequently it is nearly impossible to say that any colony is entirely pure black. Six years ago I introduced the first Italian queen into this locality, and now a bee-keeper six miles from my apiary has among his over 200 colonies, not a single one certainly pure black, and no other Italian queen was introduced here except by me.

By Mr. Doolittle's experiment, any one of the colonies which are selected to rear these drones, may supersede the queen unknown to the bee-keeper, and then produce half-pure drones. If in this or any other way, a little trace of the yellow race is in the stock, some yellow queens will appear. If from these queens more are reared, and always selected in the color line, the black traces are more and more bred out; some queens may be mated with hybrid drones again, and you have real hybrids.

So we see that this experiment gives occasion for so many mistakes, that it is no proof at all. If very carefully conducted, I know that it will result to the contrary of Mr. Doolittle's view.

The idea that these drones are not quite pure, has its origin in the experience of queen-breeders, that some of the queens reared in the apiary are darker than other ones and their mother, and produce darker workers; but this is nearly always so, because the Italian bee is far from being a quite pure race. The idea that every queen imported from Italy is necessarily pure, is a great mistake generally made in the United States. If, now, some darker queens are bred, the bee-keeper thinks that some black "blood" originates from these drones;

but this black "blood" was at first in the imported queen.

Not everywhere in Italy are yellow bees, and the bee-keepers there rear queens for the trade, and select in the color line in just the same way as we do here in the United States. More than this, Italian bee-keepers introduced Cyprian queens to better the color of their bees.

It is well known that the progeny of a mismated queen is not uniformly marked—some of the bees seem pure yellow, some pure black, and some show mixed "blood." This is quite different from other animals, and makes it possible, by careful selection, to breed a purer race, and even from hybrids we could rear pure Italians, by selecting for a long time in the yellow line; and we could rear pure black bees, if we select in the black line. But here and there one bee will show some markings of the other race, and in this condition is the Italian bee just now.

Therefore it is necessary to breed in the color line, if we want pure Italian bees; but the beauty of the bee should not be the only reason to select a queen to breed from, and in-breeding should be avoided.

If I cannot agree in this respect with Mr. Doolittle, I think that he is correct in saying that the appearance of the drone many times will lead to mistakes. I have often observed that the drones of a queen which should produce hybrid drones, look nicer and more yellow than really pure drones. If we find some drones with two broad, yellow or red bands, similar to those of the workers, we can be sure that they are "half blood;" pure Italian drones are darker in appearance, and have small golden rings only; but the only sure way to select good drones, is to look at the worker progeny *of their grand-mother* for color as well as working-qualities.

Selma, Texas.

MAINE.

Report of the Western Maine Convention.

Written for the Bee-Keepers' Advance.

The Western Maine Bee-Keepers' Association met at the residence of J. B. Mason, at Mechanic Falls, Me., on May 7, 1889. The President being absent, at 7 o'clock p.m. the convention was called to order, and J. Pike, of Livermore Falls, was elected President *pro tem.*

The larger part of the evening was spent in the regular business of the Association, after which a letter was read from Mr. E. M. Dunham, of Freeport. His bees had not done so well the last few years as formerly, but he believes that he will now succeed better.

The convention then adjourned to meet at 9 o'clock the following morning.

On May 8, at 9 o'clock the convention was called to order with J. Pike in the chair. J. S. Fuller, S. H. Stockman and Wm. Holden were appointed as a committee on exhibits. J. B. Mason was selected as a committee to act with the committee of the Maine State Association in making arrangements for the exhibit at the State Fair, and in procuring a speaker to deliver an address on apiculture at the State Fair. Mr. Mason was instructed to draw on the treasury for such sums as, in his judgment, were advisable to procure the speaker for the occasion.

The convention then adjourned to meet at 1 p.m., at which time the following were elected as officers of the association for the ensuing year:

President, J. B. Mason, of Mechanic Falls; Vice-President, J. N. Dyer, of Durham; Secretary, J. F. Fuller, of Oxford; and Treasurer, J. Pike.

The first subject discussed was "The sale of virgin queens." The sense of the convention was, that the sale of virgin queens through the mails, was not to the best interest of bee-keeping.

Prevention of Increase.

"The best method to prevent increase was next considered. Mr. Pike hives the new swarm beside the old colony, placing the new where the old stood, and removing the stand from the old to the new; in five days he shakes all the bees from the old hive in front of the new one, and repeats the shaking until all the bees are hatched out; thus all the working-force is kept in one hive, and although they swarm and are hived, no increase is obtained.

How to Secure Increase.

The next question was, "The best method for securing increase." J. B. Mason would make swarms by drawing combs of capped brood, nearly ready to hatch, one from each of the seven hives, and shaking all bees back into their own hive, then remove an eighth hive to a new stand, and place this new colony on the eighth hive's stand, giving the colony a laying or virgin queen, or a queen-cell, or even let them rear their own queen; but in the last case, a frame of bees just hatching should be substituted for one of the frames of brood. This plan gives satisfaction, as it is very nearly faultless, and the new colony is strong, although but a small amount is taken from any hive at one time.

In regard to the effect that the past poor seasons had on bee-culture, it was thought that they would redound to the best interests of those good bee-keepers who continue in the business; that the unreliable and shiftless ones had been sifted out; and that the markets would be cleaned up, ready for the new crop of 1889. It was thought necessary to have a poor season occasionally, in order to clear the market of the poor grades of honey.

The Secretary was instructed to prepare a programme for the next meeting, to be sent with the notice of that meeting.

The committee on exhibits reported that they had examined the Root and Heddon hives, and the smokers of Messrs. Bingham and Quinby, and the Mnth Cold-Blast smoker.

The convention then adjourned to meet at the residence of J. Pike, at Livermore Falls, Me., in September, 1889. J. F. FULLER, *Sec.*

FEEDING.

Bees Starving—The Rearing of Early Queens.

Written for the American Bee Journal

BY CHAS. A. BUNCH.

For the last week or ten days the bees have had a pretty hard time, unless they had honey in the combs that was left from their winter stores. White clover is in bloom, but the weather is cool and cloudy, with some rain, so that the bees have gathered but little nectar for some time. Their winter stores are mostly used up for brood-rearing, which caused me to feed full colonies this late in the season, for the first time since I have been keeping bees.

The handiest way that I can feed my bees, is to give brood-combs of honey, if I have them; if not, I use granulated sugar made in a syrup flavored with honey. This syrup I have warm in a tea or coffee can, and I go from hive to hive, lift out a frame that is empty, and pour the syrup into the comb, which can be done nicely by holding the comb about two feet below the can of syrup. Colonies whose hives have tight bottom-boards, can be fed in the evening at dark, by tilting the hive back a little. A tin separator pushed in the hive at the entrance, will serve as a trough to pour the syrup on, which will run into the hive and disturb the bees but little. I do not claim that there is anything new for old bee-keepers in these ways of feeding, but it may help some beginner in bee-keeping.

As I almost always have my hives full of bees and brood some time be-

fore white clover blooms, I thought that I could spare some bees for queen-rearing early in the spring, to see how it would result; so April 9, I removed a Syrian queen and 6 brood-combs with brood in them, and gave them a brood-comb with eggs from one of my best Italian queens, with some more combs of honey.

About April 29 three queens hatched out of five cells that were built; the cells were placed in nucleus hives a day or two before they hatched, and in due time the queens were laying, and doing finely, as far as I could see. So far this season I could get only five or six good cells built in full colonies of bees.

I agree with Mr. Chas. Dadant, as given on page 311, that large brood-chambers are the ones to test the prolificness of queens; for I place considerable value on a queen-bee that is prolific, and first-class in other respects.

La Paz, Ind., May 29, 1889.

BEES' HUM.

Spring Work—Cleaning up the Hives, etc.

Written for the Country Gentleman

BY GEO. A. STOCKWELL.

The honey season of 1889 has begun. The flow of nectar is not in a swelling stream, but leak as little as it may, it encourages the bees, and the great family begins "to rock a thousand cradles," and to knead a thousand loaves of pollen-honey bread for the occupants.

This returning to the business of life is an interesting feature in bee-keeping. Like impatient children kept in by illness or bad weather, the bees appear to fret and to contend with themselves in their eagerness to rush forth. Early in the season, in sunny, mid-day hours they frolic and play, we know not how many games, in the porch of the hive. Every hive should have a porch. The bees appreciate it as much as the bee-keeper enjoys his veranda.

The first work of spring is to clean house. The hive with movable bottom now shows its convenience. The body is lifted aside, and the bottom-board swept. This is not enough. Every frame in the body of the hive should be taken out. Dead bees, and wax-litter from the uncapping of the cells may lodge between, mold, and spoil the comb if not removed.

Will not the bees remove dead bees and all litter? They will, and one man whith a wheelbarrow will carry off a mountain in time. If a dead bee be lodged and secured between combs, the bees will carry it away by piecemeal.

But there is work to be done more satisfactory than tugging all summer at the uncleanliness of a hive. Ten minutes work of the bee-keeper places the hive in good condition, and the occupants have only to brush up, repair a little comb, and go about their regular business; until the time comes to put on the surplus boxes, the bed-spreads and comforters should be kept on, and well tucked in. The bees cannot be too warm up to June 1.

At mid-day set a table before them, place a feeder under the quilt filled with warm honey. The colony may be strong, but the object in feeding is to encourage the queen that she may lay many eggs, that comb-cradles may be full, and full-grown workers may be numerous when the flood-tide of honey comes.

Bee-keeping has been discouraging for two years, but it cannot be that a third will follow in succession. Let every farmer—every one—remember that the more bees we have the greater will be the distribution of the fructifying pollen, and the greater will be the yield of all plants.

Providence, R. I.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Aug. 31.—Haldimand, at Fisherville, Ont.
E. C. Campbell, Sec., Cayuga, Ont.

Sept. —.—Maine, at Livermore Falls, Me.
J. F. Fuller, Sec., Oxford, Me.

Dec. 4, 6.—International, at Brantford, Ont., Canada.
R. F. Holtermann, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Rolling in the Honey.—J. W. Eckman, Richmond, Texas, on May 28, 1889, says:

Bees are rolling in the honey very fast from wild China and horse-mint. Everything bids fair for a large honey-yield in this part of Texas. My bees gathered no surplus last season, on account of too much rain. All crops are fine this season. We have been eating roasting-ears for two weeks.

Bees in a Starving Condition.—Jas. W. Tefft, Collamer, N. Y., on June 3, 1889, writes:

I have reared one queen this season, and have 3 colonies to work in the sections—this was previous to May 15; since that time it has been cold and rainy, and the bees could not go out to gather from white clover, raspberries and other plants in full bloom. On June 1 I examined every colony, and found them full of young bees, from 6 to 8 frames full of brood, and some drones; but I do not think that there is 10 pounds of honey in the apiary, which is something remarkable for this part of the country at this season of the year. I shall feed only those colonies that throw ont brood. On June 2 and 3 bees were working lively, although it rained, and there was a high wind. I examined 10 colonies of bees of my neighbors, and found them all in a starving condition. This is rather discouraging, is it not?

Dry Weather in Minnesota.—Wm. Enke, Rochester, Minn., on June 1, 1889, says:

The season here is very discouraging. The continued dry weather killed most of the clover, so that now but little is to be seen. Bees are now gathering some honey-dew, which just keeps them breeding well. The prospect now is that we will not get any white honey except from bass-wood. We have frost two or three times a week.

Snow-Storm and Frost.—A. H. Lind, Calumet Harbor, Wis., on May 31, 1889, says:

This morning we had quite a snow-storm, enough to make the ground white for about an hour. I fear that if the weather does not change very soon, our crop of white honey will be very small. Corn, potatoes, beans and grapevines have .been damaged the last week by frost, and I am afraid for the linden blossoms. Clover is coming into bloom, but yields no honey. I put 17 colonics of bees into the cellar last fall, took out 14 in good condition, and sold one, leaving 13 for the season's work.

Colonies Short of Stores.—W. D. Markham, Hart, Mich., on June 3, 1889, writes:

Having kept bees for 25 years or more, I never before have had this experience, and being warned by Mr. Doolittle and others quite often to look to the bees right away after apple-blossom, and having been cold and wet for about two weeks, I began to be uneasy, and on investigation I found reason to be a good deal alarmed. In walking around among them (I have about 100 colonies), I saw at the entrances of a few hives an unusual amount of dead bees. I quickly

removed the cover (I thought it was too cold before to look after them much), and I found that 4 colonies had given up entirely, and 5 more that still had life, which, with some warm honey poured over them, soon started them on the buzz again. This was on May 27. I soon got about three gallons of food ready, and decided that it was not too cold and wet to see if my bees were about to starve, for they had always been pretty good to me. I found, on investigation, about 25 colonies getting pretty short of stores, and now every day or two I am dishing them up a good square meal. It is still raining now (Monday morning), and I shall have to continue to feed, or the number will increase. Bees have not been able to be out for more than two hours in over two weeks; before this they were doing so well, and I began to have visions of swarms. I think that we will have a good season, as this wet time will make white clover in abundance. I am located in the fruit-belt of Michigan. Peaches and plums are not injured by frost, and the trees are very full.

Simple Swarming Device.—J. B. Wilcox, of Manistee, Mich., deseribes a very simple swarming device as follows:

Take a piece of board about 2 inches wide, of the desired length, and a dish-pan with large wire ears; cut a notch in the end of the board, or pole, so that the wire on the ear of the pan will just go through the space between the two. With the pan on the pole, hold it just under the cluster, and give the limb a shake, then take the pan down quickly, and pour the bees in front of the hive. If this does not get the queen, it should be repeated.

Unfavorable Weather.—Joshua Bull, Seymour, Wis., on June 1, 1889, writes:

The early part of the spring was very encouraging for bee-keepers in this vicinity. March was remarkably fine for that season of the year, in this latitude. April was, on the whole, quite favorable, and the forepart of May was exquisitely fine—all that even the most fastidious could expect or desire. Fruit-bloom commenced on May 4, and continued up to about the middle of the month, with the weather warm and fine; the bees were just booming, and the strong colonies persisted in building queen-cells, and preparing to swarm. White clover blossoms began to appear on May 15, and were quite numerous by May 20; our expectations were running high in anticipation of an early and bountiful honey harvest; but our warmest hopes received a severe chill, when on May 22 a series of frosty nights, interchanged with cold rains, set in, and have continued up to the present time; since which bees have done nothing, being confined to the hive the most of the time. The fruit crop is ruined, or at least greatly injured by the frost; white clover blossoms have all disappeared, and vegetation is at a standstill. I do not know whether the bees are hibernating, or generating, or meditating what to do. We shall think it a boon if the clouds depart soon, so that the sun can once more shine through.

Good Prospect for Basswood.—Green R. Shirer, Greene, Iowa, on June 2, 1889, says:

Bees have not done much for the past two weeks, on account of cold weather—wind from the north, with frost last Friday morning. White clover is just beginning to bloom. Basswood will be very full of bloom.

Heavy Frosts—Feeding Bees.—Rev. Stephen Roese, Maiden Rock, Wis., on June 1, 1889, writes:

The heavy frosts every night for the past week or so have greatly damaged our spring bee-pasture. Bees are idling about, and feel much inclined to robbing. It is hardly safe to open a hive. All the colonies are getting quite strong, in spite of the cold and backward weather, and some new swarms have been hived by bee-keepers residing in the river bottoms, where willows were plentiful. All sorts of tender crops are frozen down to the ground, such as potatoes, tomatoes and corn. Small grain crops look yellow and thin on account of the dry weather. I have been feeding my bees up to now, and will have to continue in order to keep up breeding. Our hope for a good honey season is not entirely blasted, as the white clover and basswood honey is still to be looked for in the near future.

Results of Swarming, etc.—John Boerstler, Vashon Island, Wash. Ter., on May 31, 1889, writes:

As my bees are through swarming, I will give the number of new swarms that I received this spring from 5 colonies, viz: No. 3 swarmed on April 19, 22 and 26; No. 2, on May 1; No. 7, May 8, 16 and 22; No. 4, on May 10, 14, 17 and 20; No. 5, on May 14 and 26; No. 4, on May 18; and No. 7, on May 19. As I had not hives enough for all, I put 2 swarms into one hive, and sold 2 swarms for $10. That leaves me 16 new swarms yet. I have taken out 20 pounds of honey, and there are 50 lbs. more to take out, but as I am very busy with strawberries, I will not take it out for 2 or 3 weeks yet. Bees are doing finely, and I think that Washington Territory will be a great bee-country; I am satisfied that it will pay here. I have been waiting for three years to tell what I think of bee-keeping here, and I cannot help thinking that I am right about it. I worked with bees in Illinois for 20 years. You will hear from me again in the fall, with a big crop of honey from the 5 colonies that I started with, for I am pretty sure that I will have a good report. I sold all the honey I had, at home, at 20 cents per pound, and I could sell more at present, but I am too busy to take it out of the hives.

How to Know Pure Drones.—Ira N. Lyman, St. Peter, Nebr., says:

1. I would like to know if there are any points about an Italian drone by which a person can tell a thoroughbred drone. 2. My drones are of a yellowish color on the lower part of the abdomen, the rings are dark next to the body, and there is a narrow yellow stripe at the rear of the broad, dark band. The yellow stripe is not a bright yellow, as in the workers. 3. I would like to know if the yellow part of the abdomen, next to the body, is connted as one band on the three-banded workers in the Italian race of bees. 4. How long, generally, is it after the drones make their appearance, before the bees swarm, if all things are fair for bees, and the weather is good?

[1. No; you must judge them by the workers.

2. The drones vary in color in different colonies.

3. Yes; count the yellow part next to the thorax.

4. Swarming is generally indicated by the young queen being ready to emerge—not by the drones.—Ed.]

Convention Notice.

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec. Brantford, Ont., Canada.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

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If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

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Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

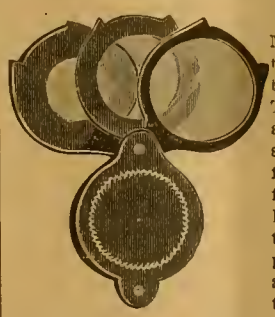
A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (old edition)	2 25	2 00
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.



Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

DORÉ ART PORTFOLIO,

PRICE, 50 CENTS,

Will be CLUBBED with the AMERICAN BEE JOURNAL, at the low price of $1.25, postpaid.

This magnificent Art Portfolio is in size just 11x14 inches, and besides a picture of Gustav Dore, the great French Artist, it contains the following beautiful engravings: Expulsion from the Garden of Eden—Entering the Ark—Noah Cursing Ham—Samson and Delilah—Ruth and Boaz—Death of Saul—The Judgment of Solomon—Daniel in the Lion's Den—Daniel Confounding the Priests of Baal—The Nativity—Christ Healing the Sick—Sermon on the Mount—The Disciples Plucking Corn on the Sabbath—Jesus Walking on the Water—The Agony in the Garden—Death of the Pale Horse. Seventeen handsome full page plates under one cover.

Scientific Queen-Rearing, as practically applied; being a method by which the best of queen-bees are reared in perfect accord with Nature's ways—by G. M. Doolittle, of Borodino, N.Y. 176 pages.

In this book Mr. Doolittle details the results of his experiments in rearing queen-bees for the past four or five years, and is the first to present his discoveries to the world. It is published in time for every progressive bee-keeper to test the various discoveries which it details, during the present season. Send all orders for the book to this office. Price, $1.00, postpaid. The usual discount to dealers in lots of 10 or more.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Honey and Beeswax Market.

MILWAUKEE.

HONEY.—We quote : White 1-lbs., 15@16c.; 2-lbs., nominal ; dark 1-lbs., 12½@13c. Extracted, white, in tin and pails, 9½@10c.; medium, in kegs and ½-bbls., 7½@8c.; white, in kegs and ½-bbls., 8½@9c.; dark, 5@6c.

Market good for the season of year, prices firm for good qualities, and old crop is being closely sold out.

BEESWAX.—25@28c.

June 6. A. V. BISHOP, 142 W. Water St.

DETROIT.

HONEY.—Best white 1-lbs., 14@15c. Market is dull and lower, but not overstocked. Demand slow.

BEESWAX.—22@23c.

Apr. 30. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—We quote: White 1-lbs. 15@16c.; dark, 10@12c.; California white 2-lbs., 11@12c.; amber, 10@11c. Extracted, white, 7@8c.; dark, 5@6c. Our market is in good condition for the new crop.

BEESWAX.—20c.

May 11. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Extracted, in barrels, 8½@6¾. Excellent demand for clear, bright in barrels. Dark, 5¾@6c.

BEESWAX.—Scarce at 23c. for prime.

May 22. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—Extracted in good demand. We quote : Fine orange-bloom at from 7@7½c.; off grades of Southern, 60@70c. per gallon.

BEESWAX.—Scarce, at 26½@27½c. for good.

HILDRETH BROS. & SEGELKEN,

June 6. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote : Best white clover 1-pounds, 18@20c.; best 2-lbs., 17@18c. Extracted, 8@9c.

Sales have been checked a little on account of maple sugar and syrup being so plentiful. Sales of honey are very slow.

May 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Best white comb honey, 11@16c. Demand is fair. Arrivals are plentiful of new comb and extracted honey from the Southern States, where the season had a most prosperous beginning.

BEESWAX.—Demand is good—20@24c. per lb. for good to choice yellow, on arrival.

May 21. C. F. MUTH & SON, Freeman & Central Av.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Cheap Extracted Honey.—We have a keg of DARK HONEY, weighing 164 pounds, net, suitable for feeding to bees, which we will sell at **6 cents** per pound, delivered on the cars here.

Advertisements.

A TWO-CRATE CHAFF HIVE

FOR $2.75. Send for Price-List and terms to Agents. J. A. ROE,

23Atf UNION CITY, IND.

Mention the American Bee Journal.

NOT TOO LATE

Yet, to Order

SUPPLIES

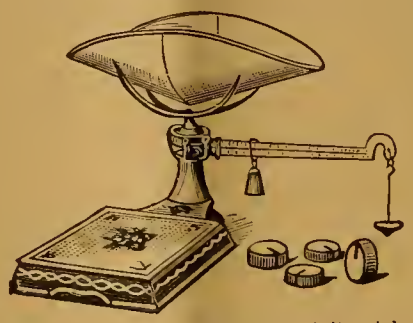
from me, as I ship promptly. I carry a very fine class of Goods. Try me once. Catalogue free. JOHN ASPINWALL,

24A3t BARRYTOWN, N. Y.

Written for the American Bee Journal

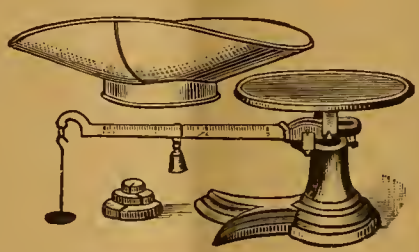
Useful Scales

The Union or Family Scale.



This Scale has steel bearings, and it weighs from ½-ounce to 240 pounds. Price, with a Single Brass Beam, as shown in the illustration, $3.00. With Double Beam for taking the tare, $3.50.

The Little Detective Scale.



This little Scale is made with steel bearings, and a brass Beam, and will weigh accurately ¼-ounce to 25 pounds. It supplies the great demand for a Housekeeper's Scale. Prices :

Single beam,	no scoop	$2.00.
" "	tin "	2.50.
Double "	no scoop	3.00.
" "	tin "	3.50.

☞ All orders filled promptly.

THOS. G. NEWMAN & SON,

923 & 925 W. Madison St., - CHICAGO, ILL.

TANSY PILLS!

Safe, Certain and Effectual. Particulars 4c. WILCOX SPECIFIC CO., Phila., Pa.

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Mention the American Bee Journal.

BRIGHT ITALIAN Bees and Queens, Bee-Hives, Sections, Foundation, etc.

12A1y H. H. RUETER, Baxter Springs, Kan.

Mention the American Bee Journal.

Heddon Hives For Sale.

TO the purchaser of my 29 New Heddon Hives (never used) at $3 each, I will give a New 4-Frame Stanley Automatic Honey-Extractor, worth $20 00, f. o. b.

10Etf E. D. KEENEY, ARCADE, N. Y.

Mention the American Bee Journal.

April 1st, For 60 Days, 1889.

WE have a large stock of ONE-PIECE SECTIONS on hand, which are first-class. To reduce stock, we will name a very low price on them, in 1,000 or 100,000 lots. Also Hives, Smokers and Brood-Frames. Do not fail to tell us what you want, or send for our Price-List. Address,

SMITH & SMITH,

24Etf KENTON, Hardin Co., OHIO.

Mention the American Bee Journal.

TRY THEM

ONE of our Beautiful Golden Italian QUEENS, reared by our New, Practical and Natural Method.

Warranted Queens, either Carniolan or Italian, each, $1 ; Select, each, $1.25; Tested each, $1.50.

We have had 30 years' experience in the Rearing of Queens, and 25,000 of our customers will tell you that the Purity, Beauty and Quality of our Queens are not excelled.

HENRY ALLEY,

24Etf WENHAM, Essex Co., MASS.

Mention the American Bee Journal.

ITALIAN Queens, Tested, $1.25.; Untested, 75c., 3 for $2. Circular of Bee-Supplies, &c. *free.* JNO. NEBEL & SON, High Hill, Mo.

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Mention the American Bee Journal.

NEBRASKA.

AT Plattsmouth, Nebr., I sell 3-frame (size 9½x17⅝) Nucleus Colonies of ITALIAN BEES, with Queens, at $2.50 each—brood in 2 frames or more—¾ to 1 lb. of Bees. J. M. YOUNG.

21Atf Box 874, PLATTSMOUTH, NEBR.

Mention the American Bee Journal.

ITALIAN BEES, QUEENS, and EGGS from Light Brahma and Wyandotte Poultry One Untested Queen, $1 ; three for $2. Eggs, $2 for 13. Price-List Free.

Address, H. G. FRAME,

10Ei3t NORTH MANCHESTER, IND.

Mention the American Bee Journal.

GLASS PAILS

FOR HONEY.

THESE Pails are made of the best quality of clear flint glass, with a tall and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen,				$1.00
"	2 pounds	"	"	2.00
"	3 "	"	"	2.50

THOS. G. NEWMAN & SON,

923 & 925 W. Madison St., - CHICAGO, ILLS.

A New Book on Bees, and Dadant's Comb Foundation. See advertisement in another column.

Queens by Return Mail.

Having filled all Orders, I can from now on send

QUEENS

by return mail. Tested, in June, $2 00 ; after, $1.50. Warranted, $1 ; 6 for $5. A liberal discount to dealers and for large Orders. Make all Money Orders payable at NICHOLASVILLE. Circulars free. Only Italians.

J. T. WILSON,

18Etf LITTLE HICKMAN, Jessamine Co., KY.

Mention the American Bee Journal.

CARNIOLAN QUEENS.

I HAVE been importing and breeding this race exclusively since 1884. My orders have each year more than doubled. Send Postal for Descriptive Circular, or $1 for a Choice Untested Queen ; $5 for ½-doz.; $9 for Benton's best grade Imported Queen,

S. W. MORRISON, M.D.,

23A8t OXFORD, Chester Co., PA.

Mention the American Bee Journal.

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD
PUBLISHED BY
THOS. G. NEWMAN & SON,
CHICAGO, ILL.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. June 22, 1889. No. 25.

EDITORIAL BUZZINGS.

Loveliest of lovely things are they,
On earth that soonest pass away.
The rose that lives its little hour,
Is prized beyond the sculptured flower.
—*Bryant.*

Queen-Rearing in the North, during May, was very nearly impossible. The cold and wet weather kept the bees as prisoners. One Queen-Breeder wrote us early in June that he had fed nearly a ton of honey and a lot of sugar to his bees, to keep them from starving during that "cold spell." Those who have ordered Queens in the North must therefore exercise patience, for no one could control the weather. We can furnish Queens from the South *at once.* to those who *need* them, at $1.00 for untested, and $2.00 for tested Italians.

Another Queen-Breeder writes us that the prospect for a good honey crop is nearly ruined—that but little brood is in his hives, and adds, "As the brood reared between May 20 and June 10 gives the bees which gather our main honey crop (from basswood), honey from that source will be less than usual."

We reply, that as the *cold* weather retarded not only the production of bees, but also the flowers, it may be later, but will not be as bad as our correspondent feared, if the fine weather we now have continues without much interruption. Everything has grown luxuriantly, and we continue to look on the bright side.

By Our Clubbing List you will see that, hereafter, we will club the book, "Doolittle on Queen-Rearing" with the AMERICAN BEE JOURNAL, for one year, and send both by mail, postpaid, for $1.75. The subscription to the BEE JOURNAL may commence at any time.

More Bees Poisoned by Paris Green.—Mr. J. A. Pearce, Grand Rapids, Mich., wrote thus to Prof. Cook on June 9. The Professor replied to it, and then sent it to us for publication:

I have 58 colonies of bees. A neighbor of mine sprayed his apple trees, when in full bloom. My bees were working heavily on them at the time. They are badly poisoned, and are dying by wholesale. It was over two weeks ago, and the bees are still dying, workers, drones, young bees, etc. I fear the queens are gone, too. I am going to make an examination to-morrow. I fear the worst, for they must have stored a good deal of the poisoned stuff, and where the end will be I know not. I had hoped for good results, as my bees were very strong. I put 58 colonies into the cellar and took 58 out. They were in there 149 days. But alas, our prospects are now slim for a honey crop. I write you this for the purpose of seeing if anything can be done by the way of Legislation, or in any other way, to stop this worse than useless practice of spraying trees while in bloom. I think you are the right man, in the right place, to see to it.

Prof. Cook wrote a "Caution" to the New York *Tribune* last month, and we gave an emphatic warning on page 355. The former is as follows:

Mr. John G. Smith, of Barry, Ills., reports to the AMERICAN BEE JOURNAL, that he and his neighbors are losing all their bees. A neighbor with 100 acres of orchard sprayed his trees, while in blossom, with Paris green. Thus the bees are destroyed. I have always urged against spraying trees before the blossoms fall. I know it is very easy to poison bees with sweets to which poison has been added. Bees are valuable property, and to kill them as reported, is a crime. Again, the bees are a great benefit to the fruit—indeed, essential to a full crop.

Once more: The codlin moth does not lay eggs till the blossoms fall; so it is not wise to spray before this, even were there no bees in question. Let papers that reach farmers and fruit-growers urge all never to spray trees until the blossoms all fall off of the latest blooming trees, like Northern Spy and Jonathan. Let Legislatures make it a serious offense to do this, and any offender liable for all damages that may result from the inexcusable practice.

It is true that Prof. Cook has advised the use of "Paris Green" or "London Purple"—preferring the latter. But he was careful to say that **the time to apply it** was **"when the apples are the size of small peas."** He also gave this caution: "If applied earlier, it may poison the bees, and would do no good for a few days, until the apple is formed; and before that, it may be all washed off by a heavy rain."

In utter disregard of this, some farmers are now spraying the trees while they are in bloom, and poisoning the bees by thousands. This is criminal, and should be punished by law, if any persist in spraying the trees until **all the blossoms have fallen!**

Prof. Cook should see to it that the Michigan law-makers, many of whom are personally known to him, enact such a law, and provide for its enforcement.

Bee-keepers should warn their neighbors not to use Paris Green on their trees until it can be done with safety.

Our exchanges and all local newspapers will confer a favor by making a note of it, and repeating the caution.

The Stingless Bees of Central and South America (*Aphis meliphona*) do not amount to much, as honey-gatherers. They are of small size, not much larger than the common house-fly, and are marked somewhat like the yellow-jacket. Although these bees are stingless, they are not without some means of defense. With their sharp mandibles they can bite in a manner "more

Stingless Queen, Drone and Worker.

forcible than pleasant." These bees store between one and two quarts of honey, in combs constructed of wax, similar to that of the common honey-bee, only the cells are much larger. These bees seem to be very numerous in certain localities. A traveler in Mexico mentions, that he found upwards of 100 swarms in a single day. He found 25 colonies in a wild fig tree.—*Exchange.*

Public Lectures on Bees are being given now in the East, by Mr. Aspinwall, late editor of the *Bee-Keepers' Magazine*, and in Canada by Mr. G. B. Jones, of Toronto. The *Canadian Bee Journal* has this to say about the latter:

Mr. G. B. Jones, now of Toronto, who will be remembered by many of our readers as an enthusiastic apiarist at Brantford, is again in the ranks of progressive apiculture, and is doing important work in a new field. During his late silence as an active bee-keeper he has been making preparations to bring before the public in a most attractive manner the science and practice of modern apiculture, and is meeting with great success and encouragement in his efforts to interest outsiders in the honey-bee.

He has delivered five public lectures in Toronto on "The honey-bee; its marvelous anatomy; its interesting life, and its important work." These lectures are illustrated by over thirty large colored charts prepared by himself specially for the purpose; large enough to be seen in any hall. A sequel lecture to the above has been delivered once, which explains to the public all the practical management of bees in all departments of our industry, and is illustrated by a full line of supply samples. Its title is "The Honey-Bee as a Man's Servant."

The Toronto press has spoken most highly of these lectures, and of Mr. Jones as a public speaker. All who have heard him, say he has a most happy delivery, and that he presents his subject in a manner which holds completely the attention of his audience during the two hours which each lecture occupies. His language is simple and easy to follow, and the points of his discourse are presented so deliberately and impressively that they are easily remembered. Scientists, physicians, divines, teachers, lawyers, business men and mechanics have all heard these lectures, and have become enthusiastic in their praise.

The First Word of the fifth line of the third paragraph in the last column, on page 361, should be *twenty* instead of "two."

GLEANS OF NEWS.

Our National Flower.—On page 392 Mr. O. L. Hershiser devotes some attention to the matter now being discussed as to which shall be selected as the National Flower of America—the Golden-rod, the May-flower, or the Laurel, etc. It is to be submitted to vote—the "polls" closing next New Year's day.

It is a singular fact that while the *thistle* represents Scotland, the *rose* stands for England, and the *shamrock* for Ireland—America has no National flower! Perhaps this may be accounted for in the fact that our forefathers were much opposed to even acknowledge that this was a Nation—preferring to think of it as a Confederation of States.

Thousands of votes have already been registered, but as there are yet six months in which to register preferences, the result may be in favor of either flower, according to the systematic work done in its favor by its devotees.

Here is a chance for bee-keepers to vote *solidly* for the Golden-rod, and by their united influence have it selected. Reader, do not neglect this opportunity to do our chosen pursuit a good turn.

Mr. Hershiser describes the Golden-rod, and presents its claims in an excellent manner. Read it. As the bees have no vote, let every bee-keeper vote for the bees. The Golden-rod will thrive everywhere.

> France has the lily, England the rose—
> Every one knows where the shamrock grows;
> Scotland the thistle on the heathers nod—
> America's flower—gay Golden-rod!

It may not be uninteresting to learn what other papers have to say on this subject, we therefore copy the following:

VOTING.—When the vote of the people has been taken, Congress would no doubt sanction their verdict by the adoption of suitable resolutions, and the national flower of America would thus for all time be determined. At any rate the discussion can do no harm, and may be productive of much good. Let it go on.—*Ohio State Journal.*

ORN.—In the pleasant affair of a national emblem we can borrow from Germany and from Scotland and adopt the corn flower, and glory in the title of the land o' cakes.—*Cincinnati Commercial Gaz.*

DANDELION.—Several flowers have already been proposed for this exalted position, but no one seems to have thought of the leontodon taraxacum, the king of the American flora. The Press advocates, therefore, the adoption of this modest, hardy, beautiful, and useful flower as the one best fitted to represent our great Nation. Hurrah for the dandelion.—*New York Press.*

VIOLET.—We favor the violet. It stands for modesty, and is, therefore, a true representative of America. Its colors are rich, but not glaring. It grows in the garden and out of it. It loves the sun, but it can sprout and bloom under the snow. This is the flower to symbolize the Republic.—*New York Herald.*

DOG FENNEL.—If a flower of general distribution is wanted, and one that everybody will know as soon as he puts his eye on it, why not take dog fennel? It is abundant, modest, and very difficult to conquer.—*Miami, Ind., Helmet.*

MORNING-GLORY.—The chrysanthemum is the national flower of the Japanese, the China-aster of China, the cactus of Mexico, the lilac of Persia. Garlic we assume to be the favorite with the Italiansas a boutonniere, kale of the Hollanders, cauliflower of the Germans, and the snow-ball of Norway and Sweden. No one as yet has put in a claim for the brilliant morning-glory for America, yet what is gayer or more brilliant than an arboror sides of a cottage embellished with radiant vari-colored morning-glories. Native or domesticated, they are equally lovely.—*Dayton, O., Journal.*

INDIAN CORN.—This was suggested many years ago as a truly national plant, and a fitting emblem for the United States. It is sturdy, yet graceful. Its flower is modest but beautiful. Sculptors have found in its jointed stalk and drooping leaves suggestions for new designs as graceful as the acanthus leaves of the Greeks. It is useful as well as handsome, and no more thoroughly representative plant could be found anywhere.—*Philadelphia Inquirer.*

SNOWBALL.—Annie Whitelaw Houk, of Hutchinson, Kans., writes: "Lucy Stone votes for the sunflower. The sunflower belongs to the women of Kansas by adoption, and hence is too sectional for the floral emblem of our national banner. The same reason I would discard the trailing arbutus and the magnolia grandiflora, and suggest the merits of the variety of viburnum, known as the snowball for that distinction. In color the flower is emblematic of purity, in form of eternity, and in structure it is a fit translation for our Nation's motto, '*E Pluribus Unum*,' being composed of a number of small florets, each one perfect in itself, yet combining to form a grand whole. For these reasons, with the weighty one in addition that it grows well in all parts of the country, I vote for the snowball."—*Chicago Daily News.*

The discussion began over a year ago in the Boston *Globe*. It has now spread over the entire country, and has culminated in the publication of an exquiste little book, by Mr. Praug, entitled, "Our National Flower," which can be obtained at this office (price 25 cents), with postal card vote enclosed. The book contains elegant pictures of the two leading candidates, in lovely colors, with verses pleading for the Nation's choice. When ordering the book, if your preference or vote is expressed, we will publish it in the BEE JOURNAL.

The Golden-rod will be selected, if bee-keepers throw the weight of their influence in the scale, and vote solidly for it. Then it will receive much more attention than heretofore, and will be cultivated in great abundance—as the National floral emblem—and our little winged friends will enjoy its wealth of nectar, where now they have nothing to take its place after the lindens have given their rich yield of honey.

As the National Flower, the Golden-rod will grace every hillside, stream and valley, and will be as dear to patriotic hearts as the National Hymn aod National Flag. Where now it is but seldom seen, it will be cultivated, and thus materially add to the wealth of the flowers, when autumn comes with its tinges of glory and hues of magnificence!

To be instrumental in selecting the "National Flower of America," will be something to be proud of in all your future life, and will be gloried in by your posterity. To do it, you must *act at once*, and give it your full endeavor.

United States Census.—The Superintendent of the Census has issued the following to the medical profession:

The various medical associations and the medical profession will be glad to learn that Dr. John S. Billings, Surgeon of the United States Army, has consented to take charge of the Report on the Mortality and Vital Statistics of the United States as returned by the Eleventh Census.

As the United States has no system of registration of vital statistics, such as is relied upon by other civilized nations for the purpose of ascertaining the actual movement of population, our census affords the only opportunity of obtaining near an approximate estimate of the birth and death rates of much the larger part of the country, which is entirely unprovided with any satisfactory system of State and municipal registration.

In view of this, the Census Office will issue to the medical profession throughout the country, "Physician's Registers" for the purpose of obtaining more accurate returns of deaths than it is possible for the enumerators to make. It is earnestly hoped that physicians in every part of the country will co-operate with the Census Office in this important work. The record should be kept from June 1, 1889, to May 31, 1890. Nearly 26,000 of the registration books were filled up and returned to the office in 1880, and nearly all of them used for statistical purposes. It is hoped that double this number will be obtained for the Eleventh Census.

Physicians not receiving Registers can obtain them by sending their names and addresses to the Census Office, and, with the Register, an official envelope which requires no stamp, will be provided for their return to Washington.

If all medical and surgical practitioners throughout the country will lend their aid, the mortality and vital statistics of the Eleventh Census will be more comprehensive and complete than they have ever been. Every physician should take a personal pride in having this report as full and accurate as it is possible to make it.

It is hereby promised that all information obtained through this source shall be held strictly confidential.

ROBERT P. PORTER,
Supcrintendent of Census.

It is necessary to obtain the co-operation of medical men in all parts of the country to insure a successful result. This is all volunteer work on the part of the physician, but will give material help to a most important branch of statistical inquiry.

It is equally important to the country that the returns in relation to farm products and live stock should be full and correct. The enumerator, in the house-to-house visit he will make, during the month of June, 1890, will be constantly met with the fact that farmers keep no books, and hence returns are not frequently guess-work. The census year began on June 1st, and ends May 31, 1890. If farmers throughout the country would note this fact, and keep account of the products of their farms during the census year, it would be of material aid in securing reliable returns for the Eleventh Census.

Our Convention Hand-Book.—This is a very useful book for those who attend conventions, and should be generally used. Mr. O. L. Hershiser, of Buffalo, N. Y., writes thus concerning it, under date of June 1, 1889:

MR. NEWMAN:—We found your little hand-book for use in organizing conventions very useful. We adopted, with slight modifications, a constitution found therein.

Our meeting was attended with much enthusiasm and good cheer. The bee and honey industry seems to be awakening to new life in this portion of the State. We expect to derive much benefit from our association socially, and intellectually and financially.

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec. Brantford, Ont., Canada.

Bee-Atific Law.—Talk about Bee-Legislation! ! Here is something that caps the climax! Mr. John Aspinwall, late editor of the *Bee-Keepers' Magazine*, wrote us as follows on June 8, 1889:

FRIEND NEWMAN:—I enclose a copy of a Bee-atific law soon to be enacted by our Bee-adled Legislature. It is quite as intelligent as most of the laws they have made this year, and this has been gotten up by some wag, as a "grind" on our august Assembly.

Our friend Bercaw, of rubber stamp fame, had better come and settle in this State, as soon as this is passed, if he can live long enough to see it in operation.

Here is the Assembly Bill No. 482, referred to in the above letter:

STATE OF NEW YORK.

G. O. 87. No. 482. Int. 4.

IN ASSEMBLY.

January 10, 1889.

Introduced by Mr. COTTRELL—read twice and referred to the committee on general laws—reported favorably from said committee, with amendments, and committed to the committee of the whole.

An act to establish and define the rights of persons, male or female, discovering bee-trees or other natural receptacles containing bees or honey.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. It shall be lawful for any citizen, Indian or Chinaman, first discovering or finding a bee-tree, or tree or other natural receptacle containing bees or honey, to mark the bee upon his business end with a rubber stamp, or indicate the locality and discovery thereof with the initials of his or her name distinctly and openly marked and so placed upon such bee, as above indicated, so that it may be readily seen. Such marking shall be due notice of the discoverer's rights, and shall be respected as such, and shall establish the ownership in said discoverer of the bees, honey, comb and contents.

SEC. 2. If such tree be cut, or such bees be caught, or honey be taken or unnecessarily damaged, or the sting of such bee be removed or disturbed to the detriment of the discoverer, unless sting be lodged in discoverer, the depredator shall, on conviction, be held guilty of a "beeacide," and shall be punished by any court having jurisdiction of horse-stealing, by a fine of five hundred dollars, and the discoverer may authorize his bees to sting the depredator.

SEC. 3. This act shall not be construed as giving permission to commit a trespass, or as relieving trespasser from obligation for damages or prosecution therefor, but the discoverer of such a tree, bees or bee-stings, or honey, may, after having given to the owner or occupant of the premises upon which they were found, reasonable written notice of such discovery, and its locality, with a sample bee, duly marked and stamped, and honey, accompanied by an offer to pay the damages done to the premises consequent thereon (and in case of consent, he shall pay the same at the time of removal), may, in a civil action, recover of such owner or occupant, seven dollars for damages therefor.

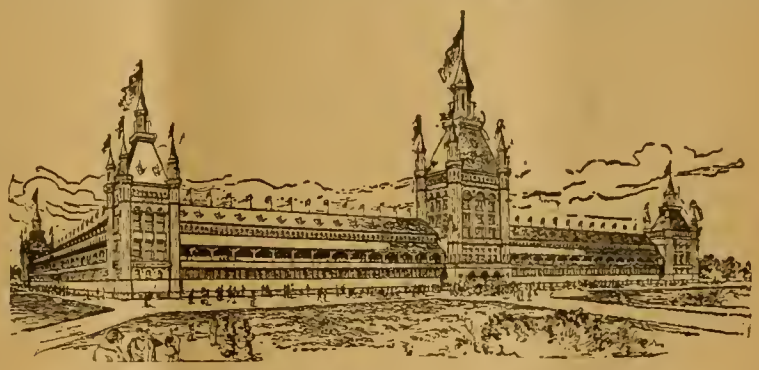
SEC. 4. The owner or occupant of the premises may, if he finds it necessary for his own advantage, or the advantage of the property which he has in charge or occupies, after giving reasonable notice in writing to the said discoverer, with a description of the tree and locality, appointing a suitable definite time for such cutting, destruction or removal, proceed to destroy, cut or remove said tree or other receptacle, having due regard for the rights and property of said discoverer, and the right of the bee and his sting.

SEC. 5. This act shall take effect January one, two thousand one hundred and sixty-three.

Such a law would be quite as reasonable as many that are enacted, and is a laughable illustration of the utter ignorance of our law-makers on many subjects that they legislate for.

Detroit Exposition Building.

The main building for the Detroit Exposition, next September, is claimed to outrival any other Fair building in the United States. The length is 500 feet; height, 70 feet; depth, 250 feet; height of corner towers, 116 feet: main tower over the grand entrance, 200 feet; area of total exhibit surface, 200,000 square feet. The structure covers 3½ acres, is lighted and ventilated by windows requiring 20,000 square feet of glass, and contains booths that, were they placed side by side, would extend over six miles. The total cost, together with companion structures, will be over $250,000.



Main Building of the Detroit Exposition.

It is located on the edge of the Detroit river, overlooking the Canadian shore and the passing commerce between the Great Lakes. Reduced rates on railroads will gather an immense concourse of people. Cash prizes, amounting to $100,000, are offered. For further particulars address the General Manager, C. W. Robinson, Detroit, Mich. The Fair will open on Sept. 17, 1889, and last ten days.

Old-Fogy Extravagance.—Mr. G. K. Hubbard, in the Indiana *Farmer*, scorns the ignorant writers on apiculture and inventions of bee-hives. He says:

The *American Farmer* gives an extended description of how to make a bee-hive, which, it says, is "beyond question, the simplest, cheapest, and best arranged hive extant." These are broad claims, and should interest us all, until we have established their value.

What is this wonderful hive? Fellow bee-keepers, do not smile when I tell you it is actually an old-fashioned box-hive, with cross sticks to support the combs, and two boxes that will hold from 12 to 15 pounds each, placed on top. These boxes are to be made "with glass ends or sides, either plain or ornamental, as the contents may be designed for home consumption, or exhibition at the sale room, or to compete for premiums at fairs." I guess we will have to smile after all, at the thought of honey put up in that style competing for premiums.

As if to excuse itself for going back 75 years and teaching old-fogyism, the *American Farmer* puts forth the protest that the more-improved hives are patented; on the contrary, the fact is, that the majority of apiarists in the country do not use patented hives; and they do not keep their bees in square boxes, and get their honey out in 12 pound chunks, either. The writer of that article undoubtedly knew more about wasting good lumber, than he did about bee-keeping.

The men in this country who are keeping bees successfully would no more think of going back to the old box or gum, than would the wheat raisers go back to the sickle or cradle to harvest their grain.

When building a bee-hive a person might better add a little to the expense and put in movable comb-frames, and have the surplus apartment arranged for one-pound sections, than to try and get it on the cheap order, and for years be compelled to use a fourth-class article....

If you wish to sell honey, you could make no better investment for your bees, as honey put up in this way commands a higher price than it will in large boxes.

In fact, in large packages it is often a drug on the market, and sometimes has to be sold at a great sacrifice, while in sections it can be shipped from one end of the country to the other, and thus the honey crop has an outlet.

Furthermore, when the honey is sold in sections, the honey, frames, and all, are weighed, and the price computed for the gross weight—nothing being deducted for the sections. Seventeen of the new, clean sections as you buy them, weigh a pound; thus, if you sold your honey at 17 cents per pound, you would be getting $10 per thousand for sections that cost you $3.50.

We ask, with renewed emphasis, where is there any saving in trying to do without the improved methods of apiculture that are within reach of all?

Sweet Clover.—R. A. Elliston, of Henry, Ills., writes thus on June 4, 1889:

I enclose a sample of what I think is some kind of clover. What is the name of it? There is a small patch of it growing near my place, and I have never seen bees work on anything so strong as they do on this plant. No one that I have met can tell me the name of it.

It is sweet clover; the seed can be obtained at this office at 20 cents per pound. It is excellent bee-pasturage.

The Doom of the Conemaugh.

Nestled among the mountains,
Cozy and snug and warm,
Town and village and city lay
Seeming secure from harm.
Never a fear of pillage—
Feasting and glad and gay—
Town and city and village
A picketless army lay.
Nestled among the mountains,
With never a thought of gloom,
Peaceful village and city and town
Felt the stroke of the doom!

Age that was wrinkled and hoary;
Youth that was golden and jet;
Manhood crowned with the crown of might;
Infancy toddling yet;
Motherhood time-worn, tender;
Wifehood trusting and true;
Maidenhood in the splendor
Of the old life ever new;
Father and mother and baby—
Lover and bride and groom,
Just in the heaven of holy love—
All went down in the doom!

Out from the east a wailing;
Out from the west a cry;
Up from the south and down from the north,
A moan that will never die!
How shall they wail their terror?
How shall they weep their woe?
Christ be the burden-bearer!
They loved the dear ones so!
Back to them all a wailing—
An echo from the tomb—
To east and west and south and north,
Sound the dole of the doom!

—*R. D. Lane, in Chicago News.*

QUERIES and REPLIES.

Keeping Bees for a Share of the Surplus Honey.

Written for the American Bee Journal

Query 637.—Where one starts an out apiary, and does all the work himself, pays 50 cents a swarm for all the swarms that are hived, and the second party does nothing but furnish the ground for the apiary, and the board while extracting honey, what share of the surplus honey should be given? (The owner of the ground wants honey for pay.)—Iowa.

About 10 per cent.—not over that.—WILL M. BARNUM.

Just the amount that you and the owner of the land can agree upon.—G. M. DOOLITTLE.

I would think that one-sixth part would be a fair remuneration.—J. M. HAMBAUGH.

In such a case, I would not give more than 25 per cent. of the honey.—P. L. VIALLON.

So many things enter into the case, that no specific rule can be laid down.—M. MAHIN.

The best terms that you can secure. No rule can be given. Last year "the board" would not have cost anything.—A. J. COOK.

I should say about one-eighth; but I have had no experience on that line.—C. H. DIBBERN.

Make an agreement that will satisfy the other party, and then do a little better than you agree.—C. C. MILLER.

You had better agree upon the sum to be paid for ground-rent beforehand, whether it is to be paid in money, honey or wheat.—MRS. L. HARRISON.

We give one-fifth of the extracted honey. We produce no comb honey. The party, however, furnishes board at every visit to the bees, and room for the utensils.—DADANT & SON.

Reduce everything to a dollar-and-cent basis, and settle that way. Pay the customary price for board, and charge the regular market price for the honey.—MAHALA B. CHADDOCK.

Add rent of land to the price of the board, and divide the sum by the price you set upon the honey per pound, and the quotient will be the number of pounds that the owner of the land will get.—J. P. H. BROWN.

I do not know. Probably an amount of honey at market value equal to the cash rental value of the land would be right, if agreed upon by the parties.—J. M. SHUCK.

I do not feel like answering this query; so very much depends upon local circumstances that my answer might possibly be the means of doing an injustice to some one.—JAMES HEDDON.

I would not contract to give a share, but to pay a reasonable amount (say $15.00) in honey, for the rent of ground, and board at usual rates.—G. L. TINKER.

This is another of those theoretical questions that must depend upon circumstances. I do not see how any two cases can be so nearly alike, that a guide of value cannot be given to suit general cases.—J. E. POND.

Set a fair price on the rental value of the land used for the apiary, and a fair price for the board, and when you have agreed on that, pay the debt in honey at the price your honey will command in your home market, eh?—G. W. DEMAREE.

It is difficult to tell, for the amount would vary, being dependent upon the number of colonies, and the honey-yield. There might be 100 or more pounds of surplus per colony, and there might be no surplus. It seems to me the better way would be to fix the price in money, and pay the amount in honey at its market value.—A. B. MASON.

As you can agree. Circumstances vary, and you give none which can be made the foundation of a judgment. How much land is to be occupied? Is it worth $5.00 or $1,000 per acre? Is the apiary to consist of 5 or 150 colonies? Are the bees gentle or irascible? Is their location where there is danger of their attacking mankind or domestic animals? What is the average surplus? If I borrow $100 of my neighbor, what is the total amount of interest I should pay him when I finally settle? is like your question.—R. L. TAYLOR.

It would be difficult to arrive at an equitable division of the honey on that plan, because you can neither tell how many meals you would be there, nor the amount of surplus you may get. A better way would be to pay a stated price for all meals, and for all other assistance or rents, to be paid in honey at a stated price.—EUGENE SECOR.

Too much depends upon conditions and circumstances to give an equitable answer to this query. It would be better to ascertain the rental value of the land, and make an agreement based upon that to be paid in honey at the wholesale market value.—THE EDITOR.

Proper Material and Width for Separators.

Written for the American Bee Journal

Query 638.—1. How much less in width should tin separators be, than the inside height of the sections with which they are to be used? 2. What kind of tin do you consider best for separators?—New York.

1. One inch. 2. Common tin.—A. J. COOK.

1. About ¾ of an inch. 2. I use a cheap grade of roofing-tin.—A. B. MASON.

1. There ought to be an inch of space above and an inch below. 2. Any tin will do.—DADANT & SON.

1. One-half to ¾ of an inch. 2. Any kind of cheap tin will do.—EUGENE SECOR.

I do not use separators. I did once, but I discarded them.—MAHALA B. CHADDOCK.

1. There should be about a ½-inch space above and below. 2. Give it up.—WILL M. BARNUM.

1. One-eighth of an inch. 2. The best of any article is usually the cheapest.—MRS. L. HARRISON.

1. About an inch. 1. I think that taggers tin is good enough.—R. L. TAYLOR.

1. About ¾ of an inch. 2. The cheapest, *because* the cheapest.—C. C. MILLER.

I do not use separators of any kind, and I am not prepared to answer either question.—M. MAHIN.

1. Those that I have used are about one inch narrower than the sections. I think that wider ones might be just as good, but ample room must be given the bees for passage.—J. E. POND.

1. One-half to ¾ of an inch. 2. I prefer block tin; taggers tin is too thin, as it gets marred too easily.—P. L. VIALLON.

1. About ½ of an inch. 2. Roofing-tin makes a very good separator; but *bright* tin-plate makes a better one.—J. P. H. BROWN.

1. One-half inch, the same being equally divided between top and bottom. 2. That which you can get at the least price.—G. M. DOOLITTLE.

1. About ½ inch. 2. Do not use tin for separators. I think that perforated wooden separators are not only the best, but the cheapest.—G. L. TINKER.

1. About ½ an inch, thus leaving a ¼ of an inch ingress and egress at the top and bottom of the sections. 2. If compelled to use tin, I would use the thinnest to be had. I do not like tin separators; wooden separators suit me best.—J. M. SHUCK.

1. Just a bee-space, or ⅜ of an inch. If the sections are open-top, ¼ inch will be right; if more space is given, they will lengthen the cells above the separators. 2. Cheap roofing or lead-plate tin is best.—C. H. DIBBERN.

1. For 4¼x4¼-inch sections, separators should be about 3¼ inches wide, which will be the inside dimensions of the section, less a good bee-space above and below. This rule will hold good for sections of other dimensions. 2. I never use tin separators.—J. M. HAMBAUGH.

1. A properly-made section 4¼x4¼ inches, should be just 4 inches in the clear. I have my tin separators cut 3⅛ inches, scant. 2. What is called by the tinners, "Coke tin," gives the best satisfaction in my apiary. It is cheaper and stiffer than the better grades of tin.—G. W. DEMAREE.

With 4¼ sections, 3⅛-inch separators are the rule. I prefer them from ⅛ to ¼ of an inch wider than 3⅛ inches; but we cannot always get tin to cut that width, and as 14x20 inches is a regular size, and that cuts just four 3⅛-inch separators, we usually make them that size, for it works very well. If they are centrally nailed on the side frames and placed between sections, and the supers properly manipulated, not much trouble will result.—JAMES HEDDON.

There should be at least a bee-space (⅜ of an inch) at the top and bottom between the tin separators and the inside of the sections. From ½ to ¾ of an inch would be better. What tinners call "Coke tin" is generally used, because it is stiffer, as well as cheaper. —THE EDITOR.

Subscribers who do not receive this paper promptly, will please notify us at once.

CORRESPONDENCE.

SWARMING.

Bees Selecting a Home Before Swarming, etc.

Written for the American Bee Journal

BY G. M. DOOLITTLE.

In regard to bees selecting a home before they swarm, there seems to be a difference of opinion, some claiming that they do select it, while others are equally sure that they swarm without any knowledge of where they are going. In most cases, probably, the latter view is correct, yet I am positive that some swarms do select their future abode some days before they swarm.

When but a boy, I many times saw bees searching the body of a large tree all over, which stood on the edge of the woods, as if looking for some place to enter it, and at that time I wondered what they were doing.

Later on, the same thing was witnessed, only at this time the bees were going in and out of a hole in another tree, as well as to be looking over the trunk of the tree. In this latter case the bees were seen for several days at work during the middle of the day, the bees going and coming from the hole about as bees would work from a nucleus, while in the morning, and after 5 p.m., no bees would be seen about the trees. A few days after that a swarm came out from one of the few hives which father kept at that time, and went straight to this tree without clustering at all.

From this I felt sure that in some instances bees did select a tree to go to before they left the parent hive; but after having bees of my own, and seeing them cluster soon after they had come out for hours, and in one instance stay for 24 hours where they clustered, I did not know what to think of the matter.

At about this time the party with whom I was in partnership in my early bee-keeping life in queen-rearing, told me one day, that, at an out apiary which he was working, which contained only black bees, he had noticed that day Italian bees at work cleaning out an empty hive which stood near one side of the yard. This was something new to him, and he said that he should keep watch of the matter and see what became of it. I was much interested, and told him of the incident related above.

The next time I went there, he told me that the bees which he saw cleaning the hive were his own bees, as he had surmised, after I told him of what I knew in the matter a few days before; for at that time his bees were the only Italian bees within four miles of his residence. He said that a swarm came out of one of his hives, and after circling around a few times, started off in the direction of this out apiary. Having a fleet horse near at hand, he jumped upon it, and in a moment was going at railroad speed for this out apiary, getting there in time to see his swarm of Italian bees rushing pell-mell into the hive that the bees had been cleaning up.

As he kept the wings of all of his queens clipped, he knew that he could soon tell of a certainty whether these were his bees or not, for if they were, he had their queen at home in a cage, and sooner or later they must return to her. In about half an hour they became uneasy, and began to leave the hive, when he returned, only to find them coming back to their old home.

He now liberated their queen, and the next day they swarmed again, and again went to the hive in this out apiary, as before. This was kept up some three or four times, when he divided the colony, and put a stop to their swarming.

The above instances cannot be accounted for in any other way than that the bees had selected their future home before leaving the parent hive; and while I agree with those who think that scouts are sent out in search of a home while the swarm hangs clustered on a limb, yet I think them a little hasty in declaring that bees *never do select a home before swarming.*

The Early "Dollar" Queens.

In regard to ordering "dollar" or "untested" queens, I would say: In the first place, "Queens for a dollar" originated with Mr. A. I. Root, and the only statement which I have ever seen regarding the conditions under which an untested queen could be had at that price, when nothing was said as to time, was *on and after July first,* being the time that such queens can be expected by those ordering them; yet for all this, there are parties who do not seem to realize but what any queen-breeder here at the North, can send them when the snow is on the ground, and rear them by the frosts of winter. At least the above is the only conclusion that I can arrive at, after knowing of orders for such queens, saying, "Send by return mail," before the bees were out of the cellar.

I do not believe that one of the parties so ordering previous to May 20, and living north of latitude 40°, could send me such queens should I order them, making the same request. In fact, parties at the South wrote me in May, that if I insisted on having orders

filled at once, they should have to return the money.

As the season was earlier than usual this year, I thought I would make extra efforts to please, so I began queen-rearing about three weeks earlier than usual, for I do not as a rule, do much at it before June 1. Well, what has been the result? Nuclei were formed to receive the cells, of which I had a large number of extra nice ones, the same being obtained in our warm weather during apple-bloom; but at the time of giving the cells, the weather changed, and we have had ten days of the worst weather imaginable for bees, during which it has frozen so hard that ice formed ¼-inch thick, and the end is not yet. Nuclei are dead, queens and queen-cells destroyed, drones killed off, and my full colonies are damaged to an extent which I do not like to contemplate.

Borodino, N. Y.

U. S. FLOWER.

Our National Flower—What Shall it Be?

Written for the American Bee Journal

BY OREL L. HERSHISER.

Quite a lively interest is now being taken in the selection of a National flower for the United States of America, and a plan which is meeting with popular favor has been offered by Mr. Prang, of Boston, whereby the people may make a popular choice. A tasteful little volume containing life-like and richly-colored representations of the two most popular floral candidates—the Golden-rod and May flower, or Trailing Arbutus—has been widely circulated throughout the United States, through the medium of news-agents and booksellers. Each flower pleads its merits, and claims for popular choice in an exquisite little poem.

A postal card with ballots prepared and addressed to Mr. Prang, accompanies each volume. After Dec. 31 next, the polls will be closed, the votes counted, the popular choice determined, and the result announced to each voter by mail. The volume is a beautiful little souvenir, and will be highly prized by all who take part in choosing the National Flower.

Thus far the Golden-rod seems to be the most popular. It has been the choice of such noted persons as Jno. G. Whittier, Joseph Cook, T. V. Powderly, Mrs. Harriet Beecher Stowe, and many others. Next to the Golden-rod, the Trailing Arbutus and Laurel seem to be the greatest favorites.

Happily in this floral-political contest, no ill-feeling or jealousy exists. No abuse or ridicule of candidates enters into the discussion. The favorites of one do not seek to injure the reputation of the other, by arraigning and magnifying imaginary faults. If the candidates could express their thoughts, as doubtless they can in "flowery language," the winner would feel sorry for the others' defeat; and the defeated would be glad to see the popular choice thus honored, while the unsuccessful candidates will be the better known and loved for having been contestants for the high distinction.

Loving the Trailing Arbutus and Laurel as we do, we cannot forbear doing a little electioneering for the gay Golden-rod. There are many considerations in its favor, which make it superior to any other flower as a national emblem. It flourishes in every variety of soil and climate, and, like our Revolutionary fathers, it yields to no discouragements, but smiles in the face of misfortune. It is equally contented in dry or wet weather, and makes no choice between poor and fertile soils. It cares no more for extremes of climatic conditions, than it does in its choice of soils, and is happy if possessing some stony pasture or forsaken fence-corner for a foothold. "It takes what is set before it, and asks no questions."

Surely the bee, if it knew of the impending election, would busy itself in a lively manner, and its arguments, too weighty to be repeated, would be in favor of the Golden-rod. It is not altogether certain that it would abstain from fraud in influencing votes, for we know its disposition to rob its neighbors, when it can find no other employment. The bee is a good judge of flowers, and has an eye to their intrinsic merits. The candidate that will secure the largest revenue will capture the bee vote.

The Golden-rod blooms not in the spring and summer, when other flowers are in their prime, and yielding fragrance and honey, often in such abundance that the bees cannot gather it all; but in the fall, when nearly all the beauties of summer have faded, it blooms gaily even at the door of winter, and furnishes delight and plenty to the bees when all other flowers have faded. It is the last sentinel to yield to the rigorous winter, and, like the fabeled Janus, it looks in two directions. It hails the advent of winter, bids adieu to autumn, and spreads a garland of glory over the departed summer.

Though the Trailing Arbutus and Laurel are the more beautiful, and shed a more delicate perfume, they are confined to special soils and climate in mountainous districts. Comparatively few know of their beauty, and still fewer will be able to see and enjoy them often; but not so with the Golden-rod, for it flourishes in mountain and valley, from Maine to California; from our Northern borders of rigorous and long winters, to the land of perpetual summer, where the zephyr is freighted with the delicate perfume of the magnolia and the orange-blossom. It is so wide-spread, and withal so beautiful, that all may know and enjoy it. It is pre-eminently suited in every way, above every other candidate, to be the National Flower.

Big Tree Corners, N. Y.

DISEASED BEES.

The Bees Dying of Some Nameless Disease.

Written for the American Bee Journal

BY JOSHUA BULL.

On page 348, Mr. J. A. Bence describes the manner in which his bees are rapidly dying off, from some unknown disease, and wants to know the cause and the remedy. I also have two strong colonies affected very much in the same way, if I understand his description rightly; although the difficulty did not commence with mine until about the first of May with one colony; and the other colony was attacked within the past week. I have never seen anything like it before, and, therefore, like Mr. Bence, I should be very much pleased to have any one who knows the cause, "arise and explain" without delay, and prescribe a remedy.

In "A B C of Bee-Culture," page 86, and latest edition, is described what the author calls the "Nameless Disease," which I think very closely resembles the condition of my bees; for I see among them some of the black, shiny bees, such as he speaks of, but many more with bloated abdomens, as Mr. Bence describes it.

Mine have no dead brood in the combs, nor any bare-headed brood, but all appear perfectly healthy until they hatch, and then some of them seem to live but a few hours, during which time they crawl around, quivering and shivering as though they had the ague, until they die.

Mr. Root directs as a remedy, to destroy the queen, and divide the brood among other colonies. I fear to do that, lest the disease might be imparted to other colonies also. But I have removed the queen and given them another, hoping that this method may overcome the difficulty when the new stock of brood begins to hatch out.

If I remember rightly, mention has been made in some of the bee-papers,

from time to time for several years past, about this very same trouble amongst bees in different parts of the country; or if not the same thing, something very closely resembling it; and I cannot well suppress some feelings of uneasiness lest this may prove to be a source of serious difficulty to bee-keepers in the near future.

There are some circumstances connected with the breaking out of this disease amongst my bees, which impresses me with the idea that the cause originates with the queen; and may be hereditary with her, and therefore transmissable from one generation to another of her queen progeny; possibly, also, the drones may be contaminated with the disease; and if such be the case, it is not difficult to conjecture how rapidly the difficulty may increase and develop disastrous affects. Of course the foregoing idea is only put forth as a sort of theory, yet I think that I have at least one good reason upon which this theory is based; but I do not feel at liberty to explain that reason at present, for fear that the interests of some other bee-keepers might be affected thereby.

It is a matter of urgent necessity, that every bee-keeper should be on the alert to guard against, and stamp out at once, any and every form of disease on its first appearance amongst his bees; and I would further suggest that no bee-keeper should allow any queens or drones to be reared by the bees in any colony which is in the least degree affected with any symptoms of unhealthfulness, or bare-headed brood, etc. Let all our breeding stock be perfectly sound and healthy.

Seymour, Wis.

ITALIAN BEES.

The Introduction of the Foreign Races of Bees.

Written for the American Bee Journal

BY DR. J. M. HICKS.

In the first place the German or our native bees were first known in America about the latter part of the fifteenth century, being imported by some of the first English settlers; as I well remember bearing Grandfather Dempsey Hicks often state, that his father, James Hicks, brought bees with him when he came from England to this country, and that there were no bees to be found in the forests until after the early settlers brought them.

It was also a very common saying among the Indians, that there was no bees known here until after the pale-faces (meaning the white men) had come to this country. It seems that bees were the proper sign, as recognized by the "red man," of an advancement of the whites in settling new territory, and the Indians were always very jealous, as well as quite superstitious, when they found bees far out from the white settlements. Yet they often got quite a generous supply of honey from an occasional bee-tree.

I do not remember of ever having heard of any very great quantity of honey being taken from a colony or bee-tree in one season, by any of the early settlers of America, from the German or black bees; but since the first introduction of the Italian and Cyprian bees, the great quantity of honey that a single colony of bees would gather and store for ther keeper has been surprising, sometimes running up into the hundreds of pounds. Yet it must be remembered that bee-keeping a hundred, or even fifty years ago, was not so well understood for profit as it is now, especially so when we consider the many improvements that we have in more fully understanding the science of apiculture, and applying the proper rules in accordance with natural laws governing the instincts and intelligence of these most wonderful insects, thus making them very profitable, as well as useful in a proper fertilization of many plants and field crops, now known to produce much better in neighborhoods where bees are kept, than where they are not.

While all the foregoing is a fact not easily controverted, from our long experience in bee-keeping we have to yield the point, and say that in many respects the Italian bees, as well as the Holy Land and Cyprian bees, are by far superior races of bees to those first known in America. In the first place, the Italian bees work on a greater variety of flowers, and on many kinds that the blacks or German bees do not; above all, they are more easily handled, and the queens can be quickly found, being of a beautiful golden color; and, best of all, the Italian queens are not so easily frightened, often going on with their labors in laying eggs, while the bee-keeper is examining a brood-comb. The workers stick more closely to their brood, and are less liable to get irritable while being handled.

It is also a well authenticated fact that the moth-worms do not bother the Italian bees nearly so much as they do the native bees, but these bees are very vigilant in cleaning them out, even from combs given them that have worms in abundance.

I know whereof I speak, when I assert that even among the Italian bees there is quite a difference in their good qualities, just as it is among the different breeds of Jersey cows as to their milking-qualities.

Look well to the bees, and they in turn will more than repay for all pains taken in their behalf. Sow buckwheat about June 10 or June 20, for both honey and a good yield of seed. The "silverhull" variety is perhaps the best; if this cannot be had, I would recommend the Japanese buckwheat as being next best, as well as a fine grain-producing variety.

Indianapolis, Ind.

SIZE OF HIVES.

Large vs. Small Brood-Chambers in Hives.

Written for the American Bee Journal

BY CHAS. DADANT.

In answer to my criticism, on page 342 Mr. Hutchinson writes, that in refusing to publish my article, he was not actuated by any motives of partiality; adding that he prefers to be misjudged by those who cannot take his simple word, rather than still further wound my feelings. This last phrase implies that I would be ashamed to see in print the article refused.

Of course, I am not as brilliant a writer as Mr. Hutchinson, and my article would have lowered the standard of excellence of the *Review*, to use the terms bestowed on his paper by the editor, in his December number. Yet, the article would have been welcomed, had I not praised the large hives, which are the nightmare of Mr. Hutchinson, who can find room in his paper neither for their praise nor for the slightest criticism of the Heddon hive, as I will demonstrate further on.

In their December numbers, both the *Apiculturist* and the *Review* invited their correspondents to write articles on "Hives," for their next issues. The *Apiculturist* published eleven articles on this topic in its January issue, and three in its February number; while the *Review* published but six in all; not for lack of room, for the January number had an article on "Diarrhea," which occupies two-and-half columns; not for want of articles, for Mr. Hutchinson wrote in the February number of the *Review*, on page 27, as follows:

LARGE HIVES.—It is impossible to notice, let alone publishing, all the articles on hives that have been received. A. L. Leach, of Dwight, Ills., very kindly sends an account of his experience with hives of different sizes. His preference is a large hive; and the reasons are that the bees swarm less, and more honey is secured....

Mr. Hutchinson continues with his usual criticism. Was the article sent to the waste basket on account of the

partiality of the editor, or because it would have lowered the *standard of excellence* of the *Review*?

In the same January number in which there was no place for Mr. Leach's article, Mr. Hutchinson has found room to review the eleven articles published in the *Apiculturist*, and to quote, from an article of Mr. J. A. Green, all the part which praises the Heddon hives. The quotation stops short where Mr. Green adds, "And yet in spite of what I have said in their favor, I am, by no means, sure that these hives are well adapted for general use." . . . . . (January *Apiculturist*, page 7.)

Mr. Hutchinson is so impartial that, in his answer to me, he wrote that "if he had given my reasons for preferring large hives he should have been *bound in duty* to mention others who had experienced and arrived at opposite conclusions." I desire to inquire of him, since he is so impartial, why he did not give the objections of Mr. Green, after having given his praises; why, after devoting so many columns to exalt the Heddon hive, he did not give a single word of critism? For instance, why did he not quote Mr. Jones, who, after buying the patent for Canada, abandoned it? etc.

Mr. H. asks: "Can my opponent extract the honey from a large hive with as little labor as from a small one." I can prove that, although living in a country where there is no linden, our six apiaries, numbering more than 400 colonies, and which give a yearly average of more than 20,000 pounds of honey, require less than 200 days of work.

Mr. Stachelhausen, of Texas, who does not use small hives, produced in two apiaries, last year, 17,000 pounds of extracted, and more than 3,000 pounds of comb honey, and did not spend more than one hundred days of work. (See *Apiculturist* for February, 1889.)

The above are facts. Let Mr. Hutchinson and others living in a linden country, and using small hives, bring their accounts in comparison. We want facts, rather than well-spun theories.

Oil-Cloths and Honey-Boards.

Mr. Hutchinson condemns the oil-cloths, as he did the large hives—without having tested them. In his May *Review*, he tries to convince Dr. C. C. Miller, who used both for years, that the honey-board is superior to the cloth.

He objects to the oil-cloth because bees put propolis between it and the frames; while they put honey between the frames and the honey-board. After removing it, he lays the honey-board upside down in front of the hive, where the bees sip the honey from the broken brace-combs. To replace it, he shakes the bees from the honey-board, and drives down with smoke those sipping on the frames. But he does not notice that robbers are more attracted by running honey, than by propolis; that the cloth is removed and replaced faster than the board; and that, being flexible, the cloth shuts the hive more closely! When we want only to see whether our bees are short of stores, we have but to remove a few inches of the cloth, while he removes the whole honey-board, or upturns his hive.

He ends his plea for honey-boards with this phrase: "We are sorry that the Doctor cannot manipulate a honey-board so easily and quickly as he can a quilt; for we honestly believe that the latter is 'going, going, going.'" (*Review* for May, page 75.)

These words show how much Mr. Hutchinson esteems his own opinions above those of one of our most experienced bee-keepers. Like a lover, who considers all the defects of his sweetheart as so many qualities, Mr. Hutchinson has his eyes so blinded, by his love for the Heddon hive, that he does not notice that his impartiality is entirely in his words, not in his acts. Let us hope that, like this lover after marriage, he will, sooner or later, awake to the reality.

Hamilton, Ills.

LAYING-WORKERS.

Getting Rid of these Pests—Concerning Drones.

Written for the American Bee Journal

BY IRA N. LYMAN.

I had two colonies of bees in exactly the same condition as described on page 308, only I did not make them queenless by putting 2 colonies together, as I do not like to disturb my bees more than is necessary in the working season, or at any time.

My hives were of different patterns, so that I could not change a brood-comb from another hive into the queenless hives, and I wanted to keep all of my colonies, for I had but a few, and wanted more. So I would not break up a colony; but to make a colony strong, and get my bees into hives all alike, I sent for Italian queens, so as to Italianize my colonies, as well as to get them into better hives. When the queens came, I took my combs all out that were fit to put into another hive, and put them into the standard Langstroth frames, as they were my choice.

My colonies were very weak, and to give them a good start, after I had got everything else into shape, I put the new queen in her cage into a hive, put the hive in the place of another strong colony, and left the queen caged 24 hours, when I set her at liberty. They worked right along from the time I put them on the stand. That queen was introduced on Aug. 14. The bees did first-rate, and is a strong colony now, but the queen did not prove to be of a three-banded strain, as I expected to get, but produces bees with two broad bands.

One Italian queen I got last season from New York, to put into a queenless colony that had a drone-laying worker, and the bees were trying to rear a queen from the drone-eggs, I just put the queen into the hive in her cage, after smoking the bees well, kept her in the cage 24 hours, and then let her out. This was on June 25, 1888. I had no trouble in introducing her, and that colony swarmed on July 30, and again on Aug. 29. All are in good condition now, and doing well.

I think that this plan works well if a person has but few bees; it is better than to break up the colony. I like to stir up the bees and confuse them pretty well before putting in the new queen, and then I think that there is no trouble in introducing them, even to a colony that has a drone-laying worker, or any other.

Drones made their appearance in my apiary on May 20, and quite a number were flying then. I look for swarms soon, if the weather is good. Everything looks promising. Alsike clover is beginning to blossom.

St. Peter, Nebr., May 21, 1889.

HONEY-DEW.

Great Flow of Honey-Dew—Making Hive-Stands.

Written for the American Bee Journal

BY EZRA J. CRONKLETON.

I work generally about 50 colonies of bees. There are but few bees kept in this county (Harrison), and what are kept here are tried to be worked on modern pprinciples, the box-hive being entirely discarded.

My location is about 50 miles northeast of Council Bluffs, in the Buoyer Valley—probably as good a location for bees as there is in the State. My bees are in fine condition at this time, though it has been rather dry this spring, but lately we have had plenty of rain. It has been very dry here the last three seasons, but I have always managed to get a very good crop of honey. White clover is entirely dried out.

We have had a great flow lately of the much-despised "honey-dew"—in

fact it is all that our bees have had to live on for weeks past, and all they will have for weeks to come, until basswood blooms. I do not see but what this juice is good enough to rear brood with; bees swarm and do well on it, and it beats buying sugar at the present prices. Of course, we are not thinking of taking any surplus from it—we will take no surplus until July 1, from basswood.

How to Make a Hive-Stand.

I wish to give my plan of a hive-stand. I think that this subject has been sadly neglected by the bee-writers. I make the stand 16 feet long, by taking three common fence-boards, some good oak-stakes, and a few nails; this is all the material necessary to hold 5 colonies. Now drive five or six stakes on a line with the 16-feet length of the board, nail one board to these stakes, having it perfectly level lengthwise; this makes the rear side of the stand. The front side is made in the same way, placing the two far enough apart so that the hive will rest on them nicely. The front board should be dropped enough to give the hive a proper pitch.

The third board I nail on top of the edge of the front board; this lays out flat on the ground, or is supported by a few brick, that is, the outer edge. The front of the hive rests on this board, and it makes a nice place to shake off bees, or for young bees to cluster and romp.

I place these stands 8 feet apart. I have used them for five years, and I must say that they are a success in every sense of the word. They are well adapted to the Langstroth hive. This stand is economical and handy, and it "shapes up" the apiary nicely; it gives a chance to keep down grass, weeds, etc.

Dunlap, Iowa, June 8, 1889.

TWO QUEENS.

Experience with Two Queens in One Hive.

Written for the American Bee Journal

BY F. HONE.

There is plenty of clover here, and basswood will also bloom in a short time. The bees could get an abundance of honey if the weather was favorable; but for several days it has been cold and rainy, so that they can hardly leave the hive. They just commenced swarming, when, about four days ago, the bad weather set in and stopped all. As a curiosity, I will state that several days ago, on examining my bees, I found two queens in one hive—one was balled at times, and at times she was treated friendly. On examining closer, I found one open queen-cell, and so I knew that the balled queen was a young one. The old queen was all right, prolific, and all the time laying eggs; the weather had been good for several days, so that she could have swarmed out, if she anticipated any danger from her daughter. I took the young queen out, put her into a paper match-box, and towards evening I put her with the box in a hive, out of which I had transferred a colony with several handfuls of bees remaining in it yet. Contrary to expectation, it rained in the night, the box got wet, and let the queen out amongst the remaining bees, where I discovered her the next morning, being treated friendly. The bees had not become wet, but had found a protected place in the hive. I introduced her into a queenless colony, and have not looked again.

Sigel, Ills., June 10, 1889.

CONVENTION DIRECTORY.

1889.	*Time and Place of Meeting.*
Aug. 31.—	Haldimand, at Fisherville, Ont. E. C. Campbell, Sec., Cayuga, Ont.
Sept. —.—	Maine, at Livermore Falls, Me. J. F. Fuller, Sec., Oxford, Me.
Dec. 4, 6.—	International, at Brantford, Ont., Canada. R. F. Holtermann, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

White Clover Full of Nectar.—S. Burton, Eureka, Ills., on June 6, 1889, says:

I had the first swarm on May 3, and then came a check, so that the bees killed off the drones, and the weather kept so cold that they could not work much; but they have had four fine days to work, and plenty to work on. White clover is very fine, and full of nectar, so that it can be smelled when one goes where it is. I look for swarming to commence soon, as the bees are working very hard now.

Making Colonies, etc.—R. L. Tucker, Lexington, Mo., on June 8, 1889, writes:

This spring I had 140 colonies of bees; by uniting the weak and queenless ones, I had about 120 colonies in good condition. My first swarm came out on May 4; since then I have increased my apiary to 145 colonies. I have had about 50 swarms so far, most of which I put back, taking out most of the brood that was ready to hatch, and giving them old combs instead. The increase comes in by putting the combs removed with bees enough to care for the brood, on a new stand. I take out enough from two old colonies to make one new one. This is the best plan that I have tried for producing comb honey, as it allows the bees the privilege of swarming, yet it does not weaken them enough to take them out of the sections. Honey is coming in nicely from white clover; but we are having too much rain for the best results.

Basswood Bloom and Frosts.—F. Greiner, Naples, N. Y., on June 11, 1889, says:

The cold, wet time which we have had for three weeks, has given the bees a severe set-back. Basswood bloom has been injured very materially by frosts, and, in consequence thereof, the yield from this source will probably be very light.

White Honey Crop.—A. W. Smith, Parksville, N. Y., on June 8, 1889, says:

Bees never wintered better in this locality than they did the past winter; but the weather has been so wet and cold, that they have scarcely made a living from the white clover, so far, and the prospects are that the crop of white honey will be very light.

Have Done Well So Far.—Fred Kanzler, Santa Claus, Ind., on June 10, 1889, says:

My bees have done well so far. I took about 40 pounds of honey from 3 of my colonies. I wintered 11 colonies, and one was queenless in the spring, which I united with another, and it was the first one that furnished me with the sweets.

Doing Well this Season.—E. Briggs, West Point, Nebr., on June 11, 1889, writes:

Bees generally are doing well this season. I have had 4 swarms this spring, from 9 colonies, 8 of which were in fine condition in the spring. I have been keeping bees three years, but the first two years my bees made only a fair living. The BEE JOURNAL, I find, is a very valuable paper in the bee-business; it has been about my only instructor.

Do Not be Discouraged.—C. P. Hewett, Kingston, Wis., on June 10, 1889, writes:

Fellow apiarists, harden not your hearts when the north wind bloweth, and the rain falleth, and the frost cometh; for the cornfield will turn to a field of buckwheat; for the sun will shine and warm the earth. Have your sections also ready, for no man can tell when that day cometh, although our apiaries are in a state of starvation. He that tempers the wind to the shorn lamb, will also temper it for the busy bee, or the bee and lamb must both die together.

Good Season Expected.—Frank Coverdale, Welton, Iowa, on June 12, 1889, says:

It has been quite cool and rainy for the past two weeks, but it is warming up again. Bees are swarming right a long. Honey is coming in fast when it is so that they can be out. White clover is an ocean of bloom, and is well filled with nectar—in fact the season has the appearance of a good one.

Basswood and White Clover.—H. M. Seeley, Harford, Pa., on June 7, 1889, writes:

My colonies are extra strong in bees. I have doubled my number of colonies, and they are working in the sections, although it has been so wet that they have only worked on raspberries three days so far. White clover is beginning to blossom, and there will be a large amount of it; also basswood is budded as full as I ever saw it. I have a small patch of the Chapman honey-plant, which is from seed sent me by the Commissioner of Agriculture; it is now about two feet high, and is looking fine.

Constant Feeding Necessary, etc.—D. F. Park, Athens, Pa., on June 5, 1889, writes:

The prospect for a favorable season is not so bright as it was a few days ago. I wintered 80 colonies on the summer stands without loss. They bred up very early, and strong. My first and only swarm came on May 14, which was two weeks earlier than usual. Another colony soon started queen-cells, and every indication pointed to heavy swarming, and a good honey crop. Two weeks ago it became cold and wet, so that no honey was gathered, and the great excess of bees soon consumed the surplus honey, so that, were it not for constant feeding, my bees would starve, although locust and white clover are in bloom. The queen that came out with the next swarm was very prolific, and her progeny were great workers, so that I carefully saved the extra cells, but none of the young queens have been fertilized as yet. Please inform us if the daisy is a honey-producer. Our bee-keepers here differ on that point.

[Almost every blossom contains more or less nectar, and, in all probability, the daisy has some of it, but the quantity is so infinitesimal that it could not be classed with the honey-producing plants.—ED.]

Bees Doing Finely.—John Haskins, Empire Prairie, Mo., on June 5, 1889, says:

We have had an abundance of rain, and I think that I never saw so much white clover in this country before, as there is this year. My bees are doing finely. My first natural swarm was on May 27.

Warm Weather Needed.—A. C. Loomis, Grand Rapids, Wis., on June 6, 1889, says:

My bees are building up strong, but a month of cold and rainy weather has prevented them from gathering honey. I have been feeding all the spring. I think that this will be a good year, if it gets warmer.

White Clover Yielding Honey.—Chas. K. Bixler, Hoyt, Iowa, on June 6, 1889, says:

The bees are doing well now, gathering a good deal of honey from white clover. The latter part of May was too cold, there being heavy frosts on May 30 and 31. Corn on low ground was frozen down to the ground. White clover was hurt pretty badly, but is out in good condition now.

Foul Brood.—I. H. Shimer, of Decatur, Ills., writes:

I consider the outlook quite gloomy in this section for the bee-industry. Nearly three years ago Prof. Gastman, of this place, discovered foul brood in his apiary, and he has let it take its own way since, until his bees are nearly, if not all, dead. I think that it is in my apiary. I did not suspect it until late last fall. I made a preparation by Prof. McLain's formula, but the mixture was so strong that it killed about half of the bees that were living. After spraying 6 colonies, I desisted, and did not renew my work. I have been thinking, that when the Legislature is in session, probably something could be done to protect our industry.

Abundance of White Clover.—A. F. Sanger, Pilot Grove, Mo., on June 8, 1889, says:

The bees are working well, and are gathering plenty of honey. There is an abundance of white clover.

Frost and Flood.—Frank Waring, Philipsburg, Pa., on June 1, 1889, says:

We had a frost here on the night of May 28, which killed all fruit and tender plants. Last night and to-day we have the largest flood since 1647; doing great damage to roads and bridges, as well as to the farms.

Continued Cold Weather.—C. Theilmann, Theilmanton, Minn., on June 10, 1889, writes:

The cold weather continues, with plenty of rain now. Bees cannot get enough outside to live on. Some colonies have swarmed, but the swarms can do nothing at building combs. Red and Alsike clovers, also timothy, are stunted (nearly frozen) from the long-continued cold weather. Corn was frozen to the ground a number of times; but small grain looks well, and oats look exceedingly promising. White, red and Alsike clovers are in bloom, but all of them look very poor and sick. Linden promises well. My bees are much discouraged.

The "Golden-Rod Ticket."—O. L. Hershiser, of Big Tree Corners, N. Y., writes:

I think that it would be nice for the bee-keepers to vote the "Golden-rod ticket" solid, and try to have it selected. If selected to be the National flower, it will afford it some protection. A good source of fall honey has often been the means of saving large expense to apiarists in the items of food and loss of colonies. I have just read of such of a case, where bees did not gather enough to winter on till after Sept. 1. It is well to look to the sources of fall honey, for such emergencies often happen, and it then becomes important. The ballots can be had at the principal book-stores and news-stands.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

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Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

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We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

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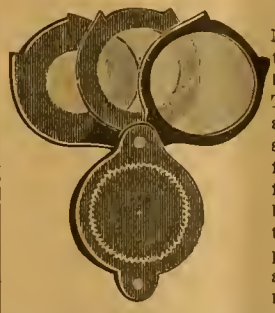
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (old edition)	2 25	2 00
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.



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500 Labels	2.00	3.00	3.50
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☞ Samples mailed free, upon application.

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Scientific Queen-Rearing, as practically applied: being a method by which the best of queen-bees are reared in perfect accord with Nature's ways—by G. M. Doolittle, of Borodino, N.Y. 176 pages.

In this book Mr. Doolittle details the results of his experiments in rearing queen-bees for the past four or five years, and is the first to present his discoveries to the world. It is published in time for every progressive bee-keeper to test the various discoveries which it details, during the present season. Send all orders for the book to this office. Price, $1.00, postpaid. The usual discount to dealers in lots of 10 or more.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices: —Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

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For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $3.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot* or *Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

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contains a large scale Maps of every country and civil division upon the face of the Globe.

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Price, in best English cloth binding (size, closed, 11x14 inches ; opened, 22x14 inches), $4.50.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

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Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

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Honey and Beeswax Market.

MILWAUKEE.

HONEY.—We quote : White 1-lbs., 15@16c.; 2-lbs., nominal ; dark 1-lbs., 12½@13c. Extracted, white, in tin and pails, 9½@10c.; medium, in kegs and ½-bbls., 7½@8c.; white, in kegs and ½-bbls., 8½@9c.; dark, 5@6c.

Market good for the season of year, prices firm for good qualities, and old crop is being closely sold out.

BEESWAX.—25@28c.

June 6. A. V. BISHOP, 142 W. Water St.

DETROIT.

HONEY.—Best white 1-lbs., 14@15c. Market is dull and lower, but not overstocked. Demand slow.

BEESWAX.—22@23c.

Apr. 30. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—We quote: White 1-lbs. 15@16c.; dark, 10@12c.; California white 2-lbs., 11@12c.; amber, 10@11c. Extracted, white, 7@8c.; dark, 5@6c. Our market is in good condition for the new crop.

BEESWAX.—20c.

May 11. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Extracted, in barrels, 6½@6¾. Excellent demand for clear, bright in barrels. Dark, 5¾@6c.

BEESWAX.—Scarce at 23c. for prime.

May 22. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—Extracted in good demand. We quote : Fine orange-bloom at from 7@7½c.; off grades of Southern, 60@70c. per gallon.

BEESWAX.—Scarce, at 26½@27½c. for good.

HILDRETH BROS. & SEGELKEN,

June 6. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote : 1-pounds selling from 16@18c.; 2-lbs., 15@16c. Extracted, 8@9c. Sales very slow.

BEESWAX.—None on hand.

June 10. BLAKE & RIPLEY, 57 Cbatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb., the market being quiet, with fair demand from the manufacturers. No choice new comb honey being on the market, we quote 11@14c. as the range for best old and new comb honey.

BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.

June 13 C. F. MUTH & SON, Freeman & Central Av.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

Cheap Extracted Honey. — We have a keg of DARK HONEY, weighing 164 pounds, net, suitable for feeding to bees, which we will sell at **6 cents** per pound, delivered on the cars here.

Advertisements.

ITALIAN Queens, Tested, $1.25.; Untested, 75c., 3 for $2. Circular of Bee-Supplies, &c. *free.* JNO. NEBEL & SON, High Hill, Mo.
20Atf
Mention the American Bee Journal.

My 21st Annual Price-List of Italian, Cyprian and Holy-Land Bees, Queens and Nuclei Colonies (a specialty) : also Supplies—will be sent to all who send their names and addresses. H. H. BROWN,
17Dtf LIGHT STREET, Columbia Co., PA.
Mention the American Bee Journal.

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THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, - CHICAGO, ILLS.

Send for Early Queens

TO J. N. COLWICK :

1 Tested Italian, before May 15, $2.25; after, $1.75.
3 " " " 6.00; " 4.50.
1 Untested " " " 1.00; " .90.
3 " " " 2 75; " 2.50.

For 1-Frame Nucleus, with any Queen add, $1.00.

☞ I give a discount of **10** per cent. on Orders booked for the next 20 days. Safe arrival and satisfaction guaranteed. Send for Price-List.

9D8t NORSE, Bosque Co., TEXAS.
Mention the American Bee Journal.

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THIS **new size** of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **Price, 75 cents per dozen, or $5.00 per 100.**

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Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.
Mention the American Bee Journal.

British Bee Journal

AND BEE-KEEPERS' ADVISER,

IS published every week, at **10s. 10d.** per annum. It contains the very best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley Herts, England.

Mention the American Bee Journal.

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BEFORE placing your Orders for SUPPLIES, write for prices on One-Piece Basswood Sections Bee-Hives, Shipping-Crates, Frames, Foundation, Smokers, etc. Address,

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25A26t NEW LONDON, Waupaca Co., WIS.
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THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. June 29, 1889. No. 26.

EDITORIAL BUZZINGS.

Brother C. P. Dadant's Family are afflicted. They have lost their "little darling girl baby"—17 months old, and of just the right age to have captured the hearts of all around. She died on the night of the 16th inst. We condole with the stricken family in their great sorrow and bereavement.

The Tune is Changed Now.—Just as we are closing the forms for this issue, the following comes from J. W. Clark, of Clarksburg, Mo., dated June 20, 1889: "The biggest honey flow from white clover I ever saw is here now. Also the swarming fever is the largest."

The warm, moist atmosphere which now prevails in many localities promises a large yield of nectar, if there are enough bees to gather it. Surely, there is a "silver lining to the clouds" which have prevailed so long.

The Lindens in Minnesota appear to be covered with striped worms—or at least those in Douglass county are. Mr. J. M. Doudna, of Alexandria, Minn., on June 18, 1889, writes as follows concerning them:

The linden honey for 1889 is hopelessly lost. The lindens in this county are covered with striped worms, that have stripped the buds, and in most cases the leaves, from the trees, so that we cannot hope for any honey from that source. Dry weather makes the prospect very doubtful for golden-rod honey. I never saw the lindens bud so profusely as they did this spring. Now it would take a busy man to find one bud among a thousand trees.

We hope that such is not true of other parts of that State. Will our friends please report on this subject at once. We want to know all about it.

The Argument of Judge Williams in the appeal of the Arkadelphia lawsuit, to the Supreme Court of Arkansas, which is given in full in this issue, is a masterly defense of the rights of bee-keepers, and a powerful argument against the claim made by many that the keeping of bees is a "nuisance," to be prohibited by law.

So many persons are frightened by the fact that the bees possess a weapon of defense, and thereupon declare them a nuisance. They never stopped to think that the "sting" was provided by Nature for its defense, and to insure the perpetuation of its kind! If an attack is made upon its home, the sting is its only defense—but it is an effective one! When away from its home it seldom volunteers an attack!

It was asserted by the prosecution, that bees were a nuisance because they were liable to sting children. Judge Williams met it with this unanswerable argument: "It is not true, unless children molest them at their hives, or catch them. But because a domestic insect may sting or hurt under some circumstances, no more makes it a nuisance—*per se*—and liable to prohibition, than the fact that a horse may kick, may run away in the harness and kill a child; or an ox may gore persons with its horns, would make these animals nuisances *per se*."

Judge Williams insists that bees were no more of a "nuisance" than cows and horses, dogs and cats, and demands that bees should have equal rights with them!

Cases are numerous where children have been injured, and even killed, by the kick of a horse, by being run over by a cow, the bite of a dog, or the scratching of a cat. The Judge asks, "Shall the keeping of horses and cows be forbidden by an ordinance?" Certainly not! No one would think of such a thing for a moment! Domesticated bees must have an equal chance with all domesticated animals!

On the Constitutional right to keep bees, Judge Williams says that because bees may sting, some seek to prohibit them, and adds: "It would follow that because cows may gore, dogs annoy the sensitive by barking or biting, or running mad, we will also prohibit them. Because vehicles may annoy by raising dust, or making a noise, or animals may run away in the harness, therefore we prohibit them. No such autocratic or despotic power is necessary to preserve the citizen from real harm and annoyance; and the Legislature could not prohibit the keeping of bees, and could not delegate such power under the Bill of Rights. For the right to acquire, possess, and protect property is secured by Section 2, Article 2 of the Constitution, beyond Legislative and Municipal control; and bees are the subject of property. Nor can the citizen be destroyed or deprived of his life, liberty or property, except by the judgment of his peers, and the law of the land." The blow therefore aimed at Z. A. Clark, is a blow at the Constitution of the United States!

Judge Williams concludes his argument by stating that the authorities cited by the opposing Counsel all sustain his position, which he sums up thus:

1. That the power is not given to prohibit bees by the statute.
2. That bees must at the time and place, and under all circumstances, be a nuisance *per se*, or the ordinance violates property right, and is not sustained by law.

Later.—Since "making up" these forms we have received news by telegraph that we have **won this suit.**

This is **another victory for the Union!** The decision of the Supreme Court is that bee-keeping is a *legitimate business*—that it is not to be likened to a "pig-sty or slaughter-house" (as a Judge of a lower Court decided it, in another suit)—that it is **not a nuisance**, and the City Ordinance against bee-keeping in Arkadelphia is *illegal* and *void!*

The Constitutional rights of bee-keepers are proven by the Union, and **we now have a decision that is valuable!**

Reader, how do you like it! Is the Union worthy of your support? If so, give it, in full measure. More next week.

More Falsehoods about the manufacture of comb honey are given in the Philadelphia *Record* of June 18. Respectable publishers ought to be above such wholesale lying. It is a re-hash of the old Wiley lie a year after Prof. Wiley has acknowledged that there was no truth in it! While a falsehood is flashed again and again around the Globe like lightning, a correction travels only like a lame mule. The *lie* of that Professor never can be atoned for.

Mr. Frank E. Sargent sends us samples of the work of his foundation fastener. It presses the foundation into the wood without heating, and without the use of melted wax. He puts the one-piece sections together and fastens the foundation at the same time, at the rate of from two to four hundred per hour. The foundation is well fastened, and if the work can be done as rapidly as that, he, no doubt, has a "good thing," and should put them upon the market as soon as possible.

The Conemaugh Valley Flood drowned bees as well as men, women, children and animals. Mr. L. S. Fleegal writes to us from Coalmont, Huntingdon Co., Pa., that his BEE JOURNALS have gone astray for four weeks, and that many of his colonies of bees were lost in the flood, as well as about 500 pounds of honey. He adds, "And I came very near to losing my family, too." That the latter escaped, is cause for much thankfulness, even though property and bees are destroyed.

The General Report now is, that bees are getting in a large amount of work in "honey gathering," and the prospect for a good crop has greatly improved during the past week.

GLEANS OF NEWS.

The Weather since the ushering in of 1889 has been exceedingly peculiar. Things have been mixed up generally. We had May weather in February, and then the February weather came in May and June. Such "mixing up" is neither pleasant nor profitable. Many of the colonies of bees which were populous in the early Spring, have dwindled to weak and dispirited ones. Feeding has been practiced quite largely, and many bee-keepers have had "the blues."

Mr. G. K. Hubbard expresses the following as his views of the situation, in the *Prairie Farmer* of last week :

We do not remember of there ever being a spring when bees were in greater need of being fed after the fruit trees bloomed, than this spring. The early part of the season was favorable indeed, and the bees were in prime condition at the close of fruit bloom, but at this writing (June 10), we have had three weeks of cold, wet weather, and not a few bees have actually starved. We noticed the first white clover heads on May 19, and during all this time there has not been a day when the bees would fly freely all day. The hives were then full of bees and brood. Since that time many have starved to death, and brood-rearing has been carried on very lightly. A large colony of bees will consume a considerable amount of stores. In addition to this, the large amount that is used in rearing brood has made a three weeks' stand-still in honey gathering, hard to bridge over, and therefore many bees have starved, and a greater number that have not died, have lived constantly on the verge of starvation. At such times, spring feeding is highly necessary, and the bee-keeper who has practiced it will find himself well repaid if good weather does commence soon.

Fortunately now the weather has changed, and it is warm, and the atmosphere is moist —making the best kind of honey-weather. We expect to hear a marked change also in the tone of our correspondence. It will soon be time to get reports about the yield from the lindens. In western Minnesota the lindens are ruined by striped worms—but we hope that such is not true of other localities. In our next issue we hope to be able to give encouraging reports generally.

Bee-Keeping in Missouri.—Mr. E. Liston, writes as follows in the Jerico, Mo., *Optic*, concerning the honey-resources of that State :

My experience covers a series of twenty years, and in that time I have had two years of total failure—so far as surplus honey is concerned. Although in those two seasons bees gathered enough to winter on.

The apiarist who does not read up in the science, and keep Italian bees, or lets his bees set back in the weeds in some fence corner, would not do so well. He would have many failures in that time. The largest yield I ever had was in 1875, and was 160 pounds per colony average the whole apiary through.

With proper attention bees are profitable all over our county. It is the easiest money I make. But locations are best near our creeks, where there is a plenty of sumac and persimmons on the bluffs, and also the bottom timbers, maples, elms, locust, plum, and many other varieties of wild bloom. In our valley, sand-stone, prairie farms we have a yellow flower (in the fall) commonly called Spanish-needle (Coreopsis), which never fails to produce honey, and of a good quality. Our finest honey is from black sumac, and is as fine as linden or clover.

We are too far south—have too much hot sun—for buckwheat to pay for either grain or honey. I was raised in the mountains in the East, in a buckwheat country, and know all about it. I tried it here nine years and quit.....

All fruit-growers ought to keep bees to fertilize their fruit flowers. We would have much better crops of fruits if we could have more bees in the country to carry the pollen from flower to flower. I am sorry to say there is an ignorant idea amongst many of our people that bees injure grapes and other varieties of fruit, which is in nearly all cases an error, except where the skin is broken first by birds or other insects. I know they will in some cases work on red raspberries when honey is scarce, and berries are over-ripe. Bees are fruit-growers' friends, and our people should read up and inform themselves before they bear false witness against the fruit-growers' best help. I am engaged in both industries, and read up in both of them, and would there be any consistency in me keeping one to tear down the other ?

Influence of Climate on Nectar.—Albert Vought, of Illawara, La., on June 13, 1889, writes as follows :

Last year I sent to the Commissioner of Agriculture for some Chapman honey-plant seed. He replied that he had none, but instead of that, sent me a package marked "Bee or Honey Clover." I sowed it this spring, and it has been blooming for the past three weeks. I presume it is sweet clover. It resembles clover, grows about 12 or 15 inches high, and has a bluish blossom. I have never seen a bee on it. I do not know how to account for it. I was highly delighted when I received the package, and thought, "Now I have it ; when all things else fail, I will have sweet clover to fall back on ;" but I am doomed to disappointment, as I also am on mignonette, of which I sowed a nice bed. Not being able to procure the mammoth at our local store, I sowed some selected from D. M. Ferry's seed-box. Can you explain why the bees will not work on the two named plants ? Is it because the bees find better pasture ? (they are "rolling" the honey in) or do the plants secrete no honey in this climate ?

The alfalfa is doing nicely ; the Alsike is small and scarce. I sowed both with millet, and expect to cut a crop of hay. Will this injure the young crop of clover, provided it is not cut again, or pastured too close this fall ?

The AMERICAN BEE JOURNAL is an invaluable friend and adviser ; without it I could do nothing. I rely wholly upon it and my judgment. I have not a bee-keeping neighbor within thirty miles, so you see I have no one to go to for advice. I am "the bee-man" in this section.

The only reason for the bees neglecting the sweet clover and mignonette must be the absence of nectar in the flowers. That can be accounted for probably in some climatic conditions. Here they work on it eagerly.

To cut the alfalfa and Alsike clovers once will be no detriment to it. It is often done.

Mr. M. H. Hunt intends to make a large display of everything pertaining to Bee-Culture at the Detroit Exposition, next September.

W. S. Hart, of Florida, is well-known among the bee-keepers of America. He has attended many of our National Conventions, and has been a very successful apiarist and enthusiastic orange-grower. The New Smyrna *Breeze* thus tells of his enterprise :

At Hawks' Park, on the first street back from the river, stands the unpretentious ivy-clad home of Mr. W. S. Hart, a bachelor from the Granite Hills of New Hampshire.

Mr. Hart arrived in this State from the West 14 years ago, and a few years later became one of the three earliest settlers at Hawks' Park. Being of an enterprising turn of mind, and having taken an active part in every advance movement, he has made his mark in this section, and evidences of his handiwork are to be seen in all directions. Both officially and as a private citizen he has contributed largely to the opening up and improvement of roads and streets, the building of school-houses, a Town Hall that is a credit to the place, and many other enterprises calculated to advance the public welfare ; nor has he neglected his own interests, but both as an orange-grower and apiarist has had marked success, and is also the owner of considerable of as good and well-located real estate as can be found on this coast. His system of setting groves, is to put them out in about two-acre lots, leaving a belt of heavy timber between, for protection against winds and possible frosts.

Of these groves he now has eight, with land cleared for one more. Although all of these groves are in good condition, there is one of 202 trees in which he seems to take particular pride, he having picked 18 boxes of oranges from the trees in one month, before they had been two years set.

In his apiary the hives are arranged in long double rows, shaded in the summer by a light roof of palmetto leaves, or the ample foliage and fruit of the Thomas and Tender Pulp grapevines. Not aiming to keep a large apiary, he makes the 100 or 150 colonies pay the profit of a much larger number handled with less care and skill in manipulation. Up to the time of the great freeze, the lowest average yield per colony was 130 pounds of extracted honey, while in 1884, 88 colonies, spring count, gave 23,000 pounds, which filled 55 40-gallon barrels, and made an average of 255 pounds per colony, while the apiary was increased to 117 colonies.

The honey-house is 16x30, with three floors, the attic being used for storing empty hives, the floor below for storing frames, wax, empty combs, and for ordinary manipulations connected with the apiary.

Here comb foundation is made for his own and neighbors' use ; and here is the large Stanley automatic honey-extractor, taking four frames at a time, and reversing them without removal from the can. From this extractor the honey passes into a tank of 1,300 capacity, from which it passes by a pipe through the wall into a large sun evaporator, in which it flows a distance of 110 feet under glass, while the heat of the summer sun cures it perfectly, and puts it in the very best condition for shipping, keeping or eating.

From the evaporator it runs into a movable tank standing on a track below ; as soon as filled this tank is run back to the basement, where the honey is barreled and made ready for market.

Mr. Hart is well-known throughout the bee-keeping world by his writings, and his having served for many years as Vice-President for Florida of the North American Bee-Keepers' Society ; as an active working officer and member of the State Horticultural Society, one of the fruit committee for this State of the American Pomological Society. Also the delegate selected to represent Hawks' Park, New Smyrna and Glencoe in the orange-growers convention at Palatka, on June 5, 1889.

JUNE DAY.

The sky is all dappled with azure and white,
The woodlands are dotted with posies,
The blue-hooded larkspur looks smiling and bright,
And the butterfly flirts with the roses.
And jack-in-the-pulpit is nodding his head,
While the *honey-bees* cheerily hum;
The oriole swings in his snug hammock bed,
And the robin sings June day has come!

The hawthorns are drooping their petals around,
The bumble-bee sighs for the clover.
The shy little cowslip in byways is found,
And the king-cups are sprinkled all over.
The dove softly coos in the shade of the wold,
The woodcock is beating his drum,
The moccasin-flower dons her slippers of gold,
And the cuckoo says June day has come!

The swallows have flown to the chimneys tall,
The thrush to his tryst is winging,
The Eglantine over the old stone wall
Her censers of incense is swinging;
And down in the meadow, amid the green grass,
The crickets so lazily hum;
The daisies nod this way and that, as you pass,
And the south-wind says June day has come!

—*Good Housekeeping.*

AUSTRALIA.

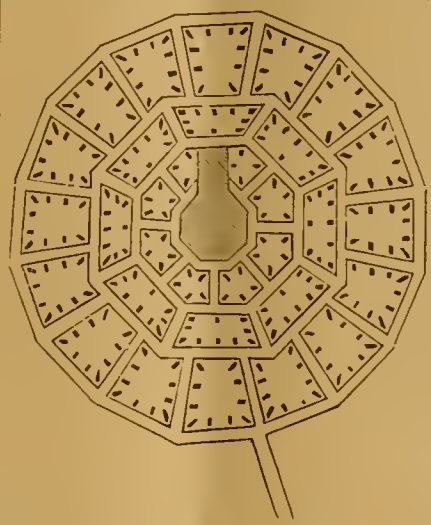
Description of an Antipodean Bee-Establishment.

The *Queenslander*, published at Brisbane, Australia, has an article describing the Æstival Apiary, property of Mr. Æneas Walker, of Redland, which may interest American bee-keepers, and we make an extract below, reproducing in smaller size the large diagram accompanying it:

In all there are 180 colonies, but a considerable number of these are nuclei—that is, small colonies of two or three frames of young bees and larvæ taken from a strong colony and allotted a pure Italian queen; the sale of such nuclei and queens is a speciality. Mr. Walker goes in for more than the production of honey.

Now the trouble of the queen-rearer is, that, when there are many hives in the apiary, the virgin queen, that, on the third or fourth day of her existence flies abroad on her bridal tour, may not sufficiently note which hive she has left, and, upon return, may enter the wrong one, with the certain consequence of being stung to death. Mr. Walker's observations showed him that it is the angle that the face of the hive presents, that is the chief point impressed upon the bee when marking which is its own home. "You may," he told me, "move a colony a few feet to either side, or backwards or forwards, and the outflying bees will not be puzzled to recognize their home; but only turn the face of the hive a quarter turn round, say from facing north, to northeast, then the out-flying bees will be for a time completely nonplussed." He, therefore, designed his apiary on such a plan that not one hive fronts exactly the same point of the compass as another.

It will be seen that a central start is made with an octagon honey-house. Then surrounding this are eight trapezoidal flower-beds, raised one foot above the level of the walks that divide them and that surrounding them. These eight central divisions Mr. Walker distinguishes by marking the first eight letters of the Hebrew alphabet on them, and each contains one strong colony and four queen-rearing nuclei. A walk surrounds this inner circle—this nursery of royalty—and then there is a second circle of eight larger subdivisions. In each of these, ten hives are placed, and a



ÆSTIVAL APIARY.—Honey-house to outer edge of inner circle of hives, 10 feet; thence to outer edge of middle circle, 15 feet; thence to outer edge of the outside circle, 25 feet.

study of the plan will show that no two of these face exactly the same point of the compass.

The entrance to the hive is in every case inwards towards the flower-bed, thus allowing all manipulations to be carried on from behind the hive, and yet the operator not to be standing in front of an adjoining hive, for nothing irritates bees more than a person moving about in front of their hives. This second series of subdivisions is distinguished by letters of the Roman alphabet, B, C, D, E, F, G, H, I, and they represent 80 colonies of bees. A walk surrounds these.

An outer circle of 16 subdivisions, each containing 10 hives, is marked on the plan, but Mr. Walker has not yet occupied these allotments. The total number of tenements that this bee-village will contain is, therefore, 280; and this is quite enough for any one locality, for the range a bee can fly over, seldom exceeds three miles, and honey often gets very scarce on such a limited area. When bees are impelled to fly further to search for honey, the losses that occur on the journey are very great. It is better, therefore, for a bee-keeper to divide his apiaries, than to have too many colonies at one place.

Each of Mr. Walker's hives is placed on a neatly-cemented floor, raised 2 inches above the ground. This floor is made to do duty as bottom-board, and the entrance V is shaped in it just as in the bottom-board of the Langstroth. There are advantages in this cementing, for no weeds grow, it is damp proof, clean, and does not rot, neither can white ants eat it.

The evening that I visited Æstival, Mr. Walker had just mastered one of those extraordinary circumstances which now and again surprise the bee-keeper. The day had been close and hot, especially the early morning; it was the first day after the first rains. Whether this close heat had anything to do with what occurred, I do not know, but I mention it as possible. However, a swarming fever spread through the apiary, and Mr. Walker, as one hive after another poured out its living stream, thought the whole apiary was in the throes of revolution. Finally they settled in one gigantic mass.

Aided only by Mrs. Walker, the owner of Æstival subdivided this mass until he had picked out no less than 24 queens; then, choosing the five best, he allotted the commoners among them.

Mr. Walker is one of those bee-keepers who disdain gloves and a veil, but he did not go and have his portrait taken that night.

"Next morning," he writes me, "I found one other queen at the same place, with a cluster of about a dozen bees around her; therefore, there must have been no less than 25 swarms that issued the day you visited me. Of course a great number of the bees that came out went back to their old hives when they missed their queens, which I had captured. I expected a frightful slaughter among the mixed hives the next morning, but there was very little indeed—chiefly caused, I believe, by the great care I took that none of the lots had *two* queens with them to start the fighting.

"I had a similar experience last year with 7 swarms (my stock then being between 50 and 60), and in putting them up I happened to leave two queens in one lot. The next morning it was quite a case of the 'Kilkenny cats,' as very little more than the two tails were left, in the shape of one queen with a very small company of bees—more than four times the number of bees in the hive being piled up dead in front; they must have been very busy all night."

QUERIES AND REPLIES.

Cleaning a Quantity of Old and Moldy Combs.

Written for the American Bee Journal

Query 639.—What treatment would you advise for a lot of good wired combs in Langstroth frames, all of which contain more or less honey, that have been exposed to the changes of summer and winter for several years, causing the honey to candy, sweat, mold, etc., until the combs seem almost rotten? They are straight, wired worker-combs, in a standard frame, and are very desirable, if cleansed so that they might be stored. I have several hundred of such frames, but have no bees upon that size of frame.—Penn.

Put bees upon them.—R. L. TAYLOR.

If wanted for use, put bees on them. If not, melt them into wax.—J. M. SHUCK.

I think that I should melt them up. Separate the honey, and feed it to the bees, and make foundation of the wax. —A. J. COOK.

If the combs are not injured, allow the bees to clean them ; but if they are filled with webs, you had better melt them up for wax.—J. P. H. BROWN.

I should melt them down, as I do not think that it would pay to attempt to save them as combs for future use. —J. E. POND.

The only rational way to clean them would be to give them to colonies. Can you not arrange them in supers over some strong colonies?—DADANT & SON.

A trial of a few combs in a colony of bees in the spring will show if the combs are still of value ; if not, I would melt them up.—G. L. TINKER.

If the combs are rotten, I would make them into beeswax. If not, one or more at a time may be given to strong colonies to clean up.—A. B. MASON.

If the combs are really rotten, they can only be melted out and thrown away—burned. If they are worth saving, cover them with bees, and let the bees clean them up.—MAHALA B. CHADDOCK.

Give them to the bees—not too many at a time. If you do not intend to use that size of frame, transfer them into the frames that you are using.—C. C. MILLER.

Here, in the spring and summer, I have put such combs into the hives of strong colonies, and had them cleaned and fixed by the bees. In your case, I would put them in a kettle of boiling water, and melt all out.—P. L. VIALLON.

I am afraid that I would not want to give very much for combs, such as you describe! You are truly in a bad "predicament." Now, if it were my case, and the combs were not too badly "rotted," I should proceed to get some bees into Langstroth hives, and then *gradually* give them the combs. This is the only practical way. Have you not a neighbor using this kind of hive? If so, perhaps you could get your combs run through his hives, for a certain per cent. of them.—WILL M. BARNUM.

Select the poorest, and allow the bees to take the honey out ; then melt the combs into wax ; the better ones, store in a dry place until you are ready to put bees on them.—MRS. L. HARRISON.

Shave off the caps and give the combs to new swarms. If you had bees on that kind of frame, the better way would be to give a few at a time in the centre of the brood-chamber of prosperous colonies, using the combs of brood removed to make new colonies.—M. MAHIN.

Cut them out and put the old comb in the sun wax-extractor, and the hot summer sun will soon do the business. You will save the frames, get a nice lot of wax, and some poor honey, that will do for feeding bees.—C. H. DIBBERN.

If I did not intend to use that size of frame again, I would render them into wax. Or they could be transferred to frames of another size, and given to populous colonies in warm weather.—EUGENE SECOR.

Put them one at a time in a good, strong colony of bees, for them to fix up. If these combs are so very valuable, what business have you to have your bees upon some other size of frame? Until you want them to use with the bees, you would better leave them as they are.—G. M. DOOLITTLE.

I would transfer the combs to the size of frames I prefer, and give them to swarms, or exchange them for empty combs in the brood-nest of strong colonies, in the early part of the season, before the early honey harvest begins. Wired combs can be cut out and transferred like other combs.—G. W. DEMAREE.

I hardly know. I would let the bees have access to them, and clean out the honey; and should they then appear worthless, it would probably be as well to cut out the combs and render them into wax. Should you desire to use the frames, wire them the long way, with three strands of wire, and fill them with foundation.—J. M. HAMBAUGH.

Well, really, I do not know. I have seen combs get into what seemed to be a rotten condition. If I had it, I should try the experiment of putting them right in among the bees—good, strong colonies—candied honey and everything, and see what kind of a job they would make of it. Try a few in that way, and then you will know.—JAMES HEDDON.

Old combs, moldy and almost rotten are surely *almost* useless, especially as you "have no bees on that size of frame." It would be better to melt them up, sell the wax, and feed the honey to the bees when necessary.—THE EDITOR.

UNION AND DEFENSE.

THE APPEAL

Of the Arkadelphia, Ark., Suit Against Z. A. Clark.

The following is the argument of the Attorney of the National Bee-Keepers' Union, Judge S. W. Williams, of Little Rock, Ark., in the above-mentioned case, on an appeal to the Supreme Court of Arkansas, in the case of the City of Arkadelphia *vs.* Z. A. Clark :

This case discloses a most flagrant violation of the property rights of the citizen. It seems that Clark, who lived in the outskirts of Arkadelphia, a village of some two thousand inhabitants, scattered over territory enough for one hundred thousand—*a ruse in urbe*—had a few bees, as the record shows (page 1), 35 stands. This gave rise to a persecution unparalleled since the days of the boot and the thumb screw, to force Clark to give up his property.

Those running the city at the time, not content to make a test case, and have the question settled by this Court —after passing this sweeping ordinance, commenced a system of daily arrests, trials without jury, judgments and imprisonments resulting in appeals ; and this is one of a numerous spawn of cases from the same oppressive hot-bed.

At last Clark was compelled, at a great loss, to give up his property, and quit his business of bee-raising and honey-production in Arkadelphia—a principal source of his support—as an alternative to indefinite imprisonment.

When the case came to the Circuit Court, one test case was tried, upon motion to dismiss, and the Court below held the ordinance void, because it did more than regulate the keeping of property—it forbid the owning, or keeping a valuable and useful property in the town ; in effect holding that the bee was *per se*, a nuisance. For if it

was not, then its presence in a town could not be prohibited by any law.

Before proceeding to argue the case, we call attention to the statement of Counsel, at page 9 of their Brief, that it is a matter of common knowledge that they are liable to sting children, etc. It is not a matter of common knowledge, because it is not true; unless children molest them at their hives, or catch them. But because a domestic insect may sting or hurt under some circumstances, no more makes it a nuisance—*per se*—and liable to prohibition, than the fact that a horse may kick, may run away in harness and kill a child; or an ox may gore persons with its horns, would make these animals nuisances *per se*.

I venture the assertion that there is not a town or city in the United States where bees are not kept. I know they are now kept in Little Rock, and have ever been. My nearest neighbors have them. I have kept them in my yard while rearing a family of children, and I cannot recall any instance of an injury from bees. I speak this in the line of common knowledge, which the Court must recognize.

I can recall the kick of a pony, and a cow running over a child—shall keeping of horses and cows be forbidden by ordinance? And while bees have been kept for centuries in towns, it is an argument in their favor that Arkadelphia is the first on record to forbid them. I respectfully submit that while the Court must judicially know the habits of all animals, the "little busy bee" should have a chance with the cow, the horse, the sportive dog, the gentle, purring cat, and even the festive chicken cock. On a par with counsel's skunk-farm story—a pure fiction of Bill Nye.

I may be allowed to refer to the fact that last year two instances are given in newspapers, one authentic at Hot Springs, one elsewhere, not so well established — where children were killed by a chicken cock attacking them. For this reason can the keeping of chickens be forbidden? The bee has no such record of homicidal or infanticidal results. Will these instances, or the fighting of mother-hens over their broods, make chickens *per se* nuisances? Unless bees, under all circumstances, however kept and tended, and in any quantities however small are *per se* nuisances—this ordinance cannot be sustained; for it does not regulate the quantity, or manner of keeping, or make the keeper responsible, as in case of other dangerous animals, and punishable for consequences, but assumes to destroy property in them in Arkadelphia altogether, or compel a man to leave his home and buy another, or quit his business.

The provision of Sections 751 to 764, Mansfield, does not give the city of Arkadelphia power to take a man's property for public use, without compensation, under the power to prevent injury or annoyance. Section 751 invests them with no such *quia timet* jurisdiction.

Because bees may sting or annoy, therefore we prohibit. It would follow, that because cows may gore, dogs annoy the sensitive by barking or biting, or running mad, we will also prohibit them. Because vehicles may annoy, by raising dust, or making a noise, or animals may run away in harness, therefore we prohibit them. No such autocratic or despotic power is necessary to preserve the citizen from real harm and annoyance; and the Legislature could not prohibit the keeping of bees, and could not delegate such power under the Bill of Rights. For the right to acquire, possess, and protect property is secured by Section 2, Article 2 of the Constitution, beyond Legislative and municipal control; and bees are the subject of property. Nor can the citizen be destroyed or deprived of his life, liberty or property, except by the judgment of his peers, and the law of the land.

ib. Section 21. Nor shall property be taken or damaged for public use without just compensation. *ib.* Section 22. This property-right is also protected by the 14th Amendent to the United States Constitution. Stockton laundry case, 26 Federal Rep. 611. The last cited is a case in point. The general law regulating governments of cities, does not give every town council, when, in their judgment, they fear that the keeping of certain kinds of property may annoy or injure, to declare it an annoyance and prohibit it. It must be a nuisance, *per se*, like a mill-pound or a slaughter-house. Many things annoy, and may injnre, that are not nuisances, and cannot be prohibited. Bell ringing, vehicle running, steam-whistles, and railroad trains are often annoying; so are privies and stables. This would not give power to prohibit them, to prevent *quia timet*—the possibility of annoyance or injury. The viciousness of this ordinance will be manifest, if we keep in view the difference between the power to regulate and keep possession of property, in due bounds, which power is conceded—and the power to prohibit keeping property altogether.

These general clauses of the statute granting powers to towns are to be strictly construed, and this Court has repeatedly held ordinances void, which have been passed under a liberal construction of the general powers given. The first is Waters *vs.* Leech, 3 Arkansas, 114. Thus the right to regulate and license keeping of a dram-shop does not authorize them to prohibit. Tuck *vs.* Waldron, 31 Arkansas, 462. Saloam S. Springs *vs.* Thompson, 41 Arkansas, 456. Nor did the power to suppress gaming-houses empower a city to license them. State *vs.* Lindsey, 34 Arkansas; Goetler *vs.* State Use, etc., 45 Arkansas, 454—and the power given in the act did not give power to declare that which is not a nuisance *per se*, to be one—which was attempted. Little Rock *vs.* Ward, 41 Arkansas, 527. Even the Legislature cannot, by declaration, make anything what it is not. 3 S. W. Rep. 425. 12 Western Rep. 760. 11 Central Reporter, 219.

We may sum up this result: The power to regulate does not give the power to prohibit, though it does give power to license. Russellville *vs.* White, 41 Arkansas, 485; and that the power to prevent and abate nuisance, does not give power to declare that a nuisance which is not *per se* such; and no presumptions are indulged in favor of the rightfulness of an ordinance. A City Council, with full power to declare a nuisance does so at its peril. Americus *vs.* Mitchell, 5 S. E. Reporter, 201. Persons abating a nuisance under a State law must show its existence. Newark & South Horse-Car Co. *vs.* Hunt, 11 Central Reporter 219.

In keeping with the decisions of our own court, to the effect that a City Council cannot by ordinance make that a nuisance which is not such: see the following authorities: Horr & Bemiss, Mun. Pol. Ord. Sec. 252. 24 N. J. Eq. 169.

There is a recent case decided by the Supreme Court of Michigan, in which a city attempted by ordinance, under penalty of one hundred dollars, to punish and prohibit the distribution of hand-bills and cards on any street or alley. The ordinance was held void, and that it was not a proper exercise of the power to clean streets, etc., and to prevent the incumbering of the same, and to regulate the manner in which the streets should be used, and to prohibit and prevent the flying of kites, and all practices, amusements, and doings therein having a tendency to frighten teams or horses, as dangerous to life or property. This was held void in case of People *vs.* Armstrong, by the Supreme Court of Michigan, Jan. 18, 1889, and is reported and commented on in the *Albany Law Journal*, March 9, 1889, with approval.

In that case there was much more pretense for the power than there is in this case; for bees are not named—and the power is claimed here under the general power to prevent injury or annoyance, etc. Mansfield's Digest, Sec. 751.

An ordinance of Grand Rapids, which forbade the marching, parading, riding, or driving upon public streets with musical instruments, banners, flags, torches, flambeaux, or while singing, or shouting, without the Mayor's permission, was void, as prohibiting a thing lawful in itself, and leaving it to an unregulated official discretion. See Frazee's case, 63 Michigan, 396.

All ordinances arbitrary in their terms, and unreasonable, and unnecessarily abridging private rights, are void. 1 Dillon Municipal Corporation, Sec. 253. Clinton *vs.* Phillips, 58 Illinois, 102. Kip *vs.* Paterson, 26 N. J. Law 298. Commissioner *vs.* Gas Co., 12 Penn. St. 318. Commonwealth *vs.* Robertson, 5 Cush. 438.

This ordinance not only does not come within the power granted, but it is also *unreasonable* and *unwarranted;* either is sufficient to make it void. Lynn *vs.* Freemason Building Association, 9 Central Reporter, 360.

Municipalities only have such powers as are expressly granted to them, or such as are necessary to carry those powers into effect. United States *vs.* Ludlow, 9 Central Reporter, 517. Johnson *vs.* District of Columbia, 9 Central Reporter, 653. It is well settled that the general power to prevent annoyance does not give power to declare everything which may annoy or arouse the fears of the sensitive—a nuisance. Nor does the existence of that fact give power to prohibit. See authorities above cited.

It is equally well settled that a city cannot under general power, declare that a nuisance which is not so in fact. Des Plaines *vs.* Poyer, 12 Western Reporter, 760. Stockton Laundry Case, 26 Federal Reporter, 611—where it is held that an ordinance is unconstitutional and void which forbid a laundry in the heart of the city; yet a drying up of stinking soap-suds might become dangerous to health, and annoy; and infected clothing would be more frequent than bee-stings. See also 9 Pacific Reporter, 141.

Mr. Wood, in his work on Nuisance, in the index at page 1021, refers to bees with a reference to title—Dangerous Animals. Under that head, at page 1025, he refers to cases of animals which, by their owners, may be known to injure, referring to page 871 *et seq.*, which recognizes fully the right to keep animals subject to responsibility (*on scienter*) for injuries by those known to be of vicious character.

Strangely enough, of all the cases cited, not an instance of injury by "the little busy bee," or the silk-worm is found; showing how harmless these little insects really are. The habits of the bee lead it to wood, field, and orchard, for pasture, and if it enters a house it is because carelessness has left some sweet uncovered, and exposed, to attract it, and rarely then does it enter a house. Those who thus invite it, are guilty of contributory negligence, and have no right to complain.

I am employed in this case by the American Union of Bee-Keepers, of Chicago, Ills.; and this is the only known case in America or England, where a town has attempted to prohibit bee-culture; and this is a test case to determine the extent of their powers. The burden of showing the nuisance is on the city. Bailey's *onus probandi*, page 233, *ib.* page 460.

A city ordinance cannot be leveled at a mere private nuisance to one or more persons. The nuisance must be public and general in its character, and must be an actual nuisance. Horr & Bemiss, Sec. 252,254. 4 Blackstone's Commentaries, 167. 1 Bishop Crim. Law, Sec. 243. Wood on Nuisance, pages 24, 25, 26, 80, 81, 82. Dillon on Municipal Corporation, Sec. 308.

I undertake to say from a knowledge of the habits of the bee, that it would be impossible for it to become more than a private nuisance, for which the person injured has his remedy, as in case of injury from a vicious animal. The nuisance must not only be public and actual, but substantial. "It is not a mere trifling annoyance with which the law deals in public nuisances," but "real, substantial injuries, that are calculated to offend the sense of men of simple tastes and habits." Conveniences are not balanced. Wood on "Nuisance," page 81.

Even in those acts which are admittedly nuisances, an ordinance is void and unreasonable, where it trenches on private rights and property without corresponding public necessity. Thus, while slaughter houses may be regulated, an ordinance is void which prohibits one from killing an animal on his own premises, unless in a slaughter house—an attempt to drive everybody to one slaughter house. Treford *vs.* People, 14 Michigan, 41. Cannot compel removal of a steam engine from a city not *per se* a nuisance. Baltimore *vs.* Palecke, 49 Md. 217. 33 American, 239. Nor can a city require the owner of a theater to pay a police officer for attendance at every performance. Waters vs. Leech, 3 Ark. 110. In the last cited case, Judge Dickinson, delivering the opinion of this Court, says: "The corporate powers are not only limited, but must be reasonably exercised in sound discretion, and not only strictly within the limits of the Charter, but in perfect subordination to the Constitution, and the general laws of land, and the rights dependent thereon."

In short, I refer the Court to Horr and Bemiss on municipal police ordinance. Sec. 131, for a full review of this point.

Where the instances are given wherein unreasonable ordinances and those in violation of private rights are given, the ordinances must accord with the Federal Constitution, and laws, and with the Legislation of the State.

It is misleading to follow English decisions, because in that country municipal power rests often upon proscription, a source not recognized here. Horr & Bemiss, Sec. 123.

We do not dispute that if there was express power given to enact an ordinance of a certain kind, if constitutional, the discretion or propriety of enacting it, is left to the judgment of the Council, and its decision is final. Horr & Bemiss, Sec. 128. But here is no "express power" given by law to forbid bees; but merely a general power to prevent "annoyance," "injury," etc. Whether an ordinance is within the terms of the power, and is reasonable, the *courts must* determine, and *have* determined in this State, and elsewhere, again and again.

So much for the contention of counsel—that the action of the City Council was final; invoking a correct principle applied to a wrong state of facts. I say to them, show your express power to prohibit keeping bees, or any other animal, or insect, for fear somebody may get hurt, and I will surrender the case, and even waive the constitutional question. There is no such express power given; that is the full extent to which the decisions go. If a power is expressly given by the Legislature, within the Constitution, the decision of the Council, that the power should be exercised by ordinance, is final. Yet this is invoked to bolster up this sweeping *anti-bee ordinance;* about as much akin to the question as a Choctaw Treaty to a Psalm of David.

You cannot stable bees like a horse, but the Court must judicially know to do that, would destroy their value as property, and the Court will judicially know that unless the owners of houses, groceries, etc., are careless in leaving attractions for them, they will not annoy them; and if they do so attract them by carelessness, they cannot complain. The bee, even with these attractions, prefers to pasture among forests, fields, and amidst flowers; so much so, that its habits are crystallized in song, and made subject of poetic simile.

If the people of Arkadelphia will keep the sugar and molasses barrels closed, and the grocers will keep their premises clean, no bee of Clark's will visit them; and from the well-known habits of the housewives of Arkadel-

phia—in perfect order and cleanliness, having no superiors—no bee visits a private house there ; and hurting young fruit and the like, as suggested in the ordinance, raises a suspicion that here is a pretext, and behind the ordinance is a concealed motive. Was it that Clark was making too much out of honey and bees ? or was he competing too sharply with somebody ?

The power given cities must harmonize with constitutional property rights, and must be reasonable and lawful, and not contravene common right. Dillon on Mun. Corp. Sec. 258, 259. And "wherever an ordinance seeks to alter a well-settled and fundamental principle of the common law," or to establish a rule interfering with the rights of individuals, or the public, the power to do so must come from plain Legislative enactment." Taylor vs. Griswold, 2 Green, N. J. 222. Dillon on Municipal Corp. Sec. 55 and Note.

I have already shown that by no possibility can the power be derived from the powers contained in Mansfield's Digest, Sec. 751; which is nothing but a power to punish or abate a public nuisanee, and while the named and defined powers are very full, we look in vain for any power or authority to abate or remove bees, as such ; nor would it be constitutional if there was such a statute. It is only when bees by the place or manner of keeping, or the like, become a public nuisance, and to that extent, and no further, does the general power go. Dillon on Mun. Corp. Sec. 261. Horr & Bemiss, Sec. 252, last paragraph. Emmett vs. Council Bluffs,46 Iowa, 66. Pye vs. Peterson, 45 Texas, 312. State vs. Matt, 61 Md., 292. Davis vs. Clifton, 8 N. C. C. P. 236. Horr & Bemiss, Sec. 144.

The power cannot be given in general terms to abate that which comes under the general definition of a nuisance, in advance of a judicial determination. Dillon on Mun. Cor. Sec. 308 ; and in Gates vs. Milwaukee, 10 Wallace 497. Judge Miller says : "This would place every house, every business, and all the property in the city at the uncontrolled will of the temporary local authority." So the words "injury" and "annoyance," used in Sec. 751, Mans. Dig. have been too often defined in like Charters to need further explanation here. It simply gives a power over nuisances, and does not mean any injury or any annoyance that sensitive or timid or nervous people may imagine or fear.

The bees must be *per se* a nuisance to justify this sweeping ordinance, under which, according to its letter, a man cannot live in Arkadelphia, if he owns bees, no difference where he keeps them ; for personal property wherever kept is in law with the owner. In Harvey vs. Dewoody, 18 Arkansas, 252 ; where the Mayor and other town officers were sued in trespass for tearing down an old house which the owner had permitted to remain vacant and open, and to be used as a privy, until it became unhealthful and dangerous, an ordinance was passed to abate it. To a plea setting up the ordinance and facts on which it was based as a defense, on demurrer to this plea, it was held a good defense.

The counsel for Arkadelphia try to gather comfort from this case, but it would be parallel if the Des Arc Council had passed an ordinance requiring all wooden houses to be torn down, without regard to condition or occupancy, or compensation to the owner. We would then have a case like the sweeping ordinance prohibiting bees, and requiring the removal for the public good, without compensation. Would a plea setting up an ordinance requiring all wooden buildings to be destroyed, have protected the officers in the Dewoody case ?

I shall not attempt to follow the learned counsel, or review their authorities ; as far as they have any bearing on the case, they sustain my position : 1. That the power is not given to prohibit bees by the statute. 2. That bees must at the time and place, and under all circumstances, be a nuisance, *per se*, or the ordinance violates property right, and is not sustained by law.

I have not stopped to criticise the manner in which the ordinance is brought in the record. It is the basis of the action, and by law must be filed, at least in the Circuit Court, for the Court cannot take judicial notice of it. It must be read at the trial, and brought on the record as the basis of the suit. Abbott's Trial Evidence, page 770. Mansfield's Digest, Sec. 2,835.

I suppose, as no point is made in argument upon the motion of appellant to dismiss the appeal, that it was thought to be unnecessary to argue it. Cardon's testimony was taken upon that motion, to prove merely that an appeal was in fact prayed, and to make him amend his transcript, and the Court overruled the motion to dismiss the appeal.

Appeals from Mayor's Courts regulated by Mansfield, Sec. 2,432, 2,435, 2,436, required nothing but a bond ; Perrin *ex parte*. 41 Ark., 194, the jurisdiction of Justice of the Peace ; appeal from Mayor taken in the same manner as from Justice. Mansfield, Sec. 797. This is a *quasi criminal* proceeding ; if so, the appeal was rightly perfected. But if governed by civil code, then it is not to be dismissed for informality. Mansfield 4,141 mode of appeal in civil case, 4,134, 4,135 ; and it was amendable. But all that was required was the filing of the bond, as the proceeding was criminal.

It is desired that the Court pass upon the question, however, for the profession are in great doubt as to what is meant by appeal from Mayor, as in case of Justice of Peace, as provided in Sec. 797. In view of the fact that there are two modes of appealing from a Justice—one by above Sections 2,432, 2,436, in criminal cases ; the other, in civil cases, by Sections 4,134, 4,135, Mansfield, which differs from the mode of appeal in criminal cases. I submit that when the Mayor sits in a misdemeanor case, whether for violating an ordinance, or a law, the appeal must follow criminal procedure. If he sits as a Justice of the Peace in a civil case, the appeal must be taken according to Sections 4,134, 4,135.

[For editorial remarks on the foregoing Argument, see page 403.—ED.]

UNSEALED BROOD.

To Prevent the Swarms from Decamping.

Written for the American Rural Home
BY G. M. DOOLITTLE.

Will unsealed brood prevent swarms from decamping ? is a question often asked, and one which is often answered in the affirmative. I claim that it will, under certain conditions, while under other conditions it is no preventive whatever, but, on the contrary, rather increases the tendency of swarms to decamp. Since this plan of giving unsealed brood—to make swarms stay in the hive in which they were put—was given to the public, I have closely watched the bee-papers for reports, and I find that more reports are given of swarms going away where brood is so given, than of those where the writer thought that the brood helped his swarms to stay in the hives that they were hived in.

Previous to 1871, I had never clipped any of my queens' wings, and I was often fearful that my new swarms might desert the hives that they were placed in. During the spring of that year, I read that a frame of unsealed brood placed in the hive at the time of hiving, was a sure preventive of a swarm's decamping. This was read with enthusiasm, as here was a plan by which my fears could be entirely removed. Consequently, when my first swarm issued, I hastened to get a frame of brood in all stages which also contained some honey to start them in housekeeping, as Elisha Gallup, that

veteran bee-keeper, used to tell us that we should do.

They were hived about 2 p.m., and I went to bed that night feeling that my first swarm of the season was well provided for, and would be sure to stay. The next morning I took a look at them, and went into the field some distance from the house to work.

At about 9 o'clock, the cry, "Bees are swarming," was heard, and upon reaching the bee-yard, the new swarm was seen going for parts unknown. My lips were bit, as I thought of some appropriate words to say about the one who had recommended this plan, still I never put those words in print, although I thought the author of this plan of keeping swarms from absconding, deserved a good chastising.

I then resolved that in the future I would keep the wings of all of my queens clipped, which was done without delay. Since that time I have often hived swarms, and given them brood by way of experiment, and have also given brood to swarms made by dividing, and had many of them come out, but their queens could not fly, and so of course they could not abscond. Probably three-fourths of the swarms hived in this way have stayed and worked all right, yet not one in fifty hived in an empty hive has bothered me in attempting to leave, which proves that the brood was, on the whole, no preventive, but, on the contrary, an incentive for the bees to leave the hive.

But, says one, "Bees ought not to leave unsealed brood, as it is contrary to their nature to desert such." Let us look into this matter a little, and see if this claim is correct. When all prime or first swarms issue, they leave brood in all stages in the parent hive, from which they came, whether contrary to their nature or not, and in giving the frame of brood to swarms having the old queen with them, we place them in exactly the same condition, as far as this frame of brood is concerned, in which they found themselves immediately before they swarmed. It is evident that the prime swarms issue because there is a prospect of more bees hatching than are needed to make a fairly prosperous colony, which, with the instinct that is implanted within them, "to multiply and replenish the earth," causes them to swarm. By giving them brood we place the hive in a similar condition to what the one was which they left for the purpose of getting away from those conditions. Is not this plain?

Upon examining hives with brood placed in them, from which a swarm had tried to decamp, I find that they will have two small pieces of comb built, one on each side of the frame of brood given, while queen-cells have been built upon the frame of brood in which the queen has deposited eggs; thus showing that tthey consider the conditions the same, or nearly so, as they were in the parent hive from which they had issued the day previous.

In these cases of desertion, there are nearly bees enough left to protect the brood in the frame, which also shows that they swarm under nearly the same impulse which was upon them when they first left their parental roof. This being the case, when is brood ever a preventive to swarms' absconding? Swarms having virgin queens issue from a plurality of queens in the hive, and not because the hive is becoming over populous; besides, such swarms never leave any unsealed brood behind, without the interference of man. If, now, they have unsealed brood given them, it secures to them the means of rearing another queen, and as such swarms are always smaller than prime swarms, and the queen will not get to laying in nearly a week, this brood is to them a means of safeguard against accident when the queen goes out to be fertilized.

For the above reason it is always best to help such small colonies along a little whenever they are hived, for it not only prevents their leaving a positive means of getting a queen (should the one they have be lost before she gets to laying), but the brood so given helps them to get to be a self-supporting colony much sooner than they otherwise would be; for the few thousand bees which will hatch out of this comb thus given, are a great help, coming as they do in a time when they are the most needed.

In the above we have the true secret of giving brood to swarms when hived, always giving such as have virgin queens, brood, and withholding it from those which have the old or laying queen. This lack of discrimination on the part of those who have recommended the plan, is what has caused much of the trouble in the past.

Borodino, N. Y.

NEW YORK.

Report of the Erie County Bee-Convention.

Written for the American Bee Journal

BY O. L. HERSHISER.

The first regular meeting of the Erie County Bee-Keepers' Association met at East Aurora, on June 15, 1889. The meeting was called to order by President Charles Penton.

After the reading of the minutes of the previous meeting, it was decided that each of the five counties adjoining Erie county be divided into four districts, and a Vice-President chosen from each district. The following Vice-Presidents were then chosen: E. D. Keeney, of Arcade, for the southwestern district of Wyoming county; Milo Bundy, of Angola, for the southwestern district of Erie county; U. E. Dodge, of Fredonia, for the southwestern district of Chautauqua county, and Luther Corry, of Yorkshire Corners, for the northwestern district of Cattaraugus county. The election of other Vice-Presidents for the remaining districts was deferred until the next meeting.

AFTERNOON SESSION.

The following question was propounded, and discussed:

"Can more honey be secured by allowing bees to swarm, than by preventing them from swarming?"

The opinion prevailed that more honey could be procured by allowing the bees to swarm naturally, and then take advantage of the impulse to work, which prime swarms always have. After the bees have swarmed, the hive from which the swarm issued should be moved from its place, and another hive (of the same pattern as the old one) and the swarm should be placed where the old one stood; thus securing all the old working bees in the new colony. The surplus sections should then be removed from the old to the new colony, and a laying queen introduced to the old colony. As all the bees in the old colony are young, no danger will result in introducing the queen.

Italianizing—Laying Workers.

"What is the best method of Italianizing an apiary?"

Mr. Keeney said: "Buy a good Italian colony, and rear queens from it to Italianize the apiary. The colony should be kept, if possible, out of reach of other races of bees. It is much better to rear drones from one colony, and the queens from another. This would necessitate the purchase of two pure Italian colonies."

"Has any one present ever seen a laying-worker?"

In the discussion which followed, it appeared that no one present had ever seen laying-workers, and there was a division of opinion as to whether they really existed. Some thought that what are supposed to be fertile workers, were really nothing more than queens so poorly developed as not to be distinguishable from a common worker. Nearly all had seen the results of laying-workers. Experiments will be conducted, and reports given at the next meeting, to prove as

to whether or not there is such a thing as a laying-worker.

Rev. H. M. Brown then read a very interesting essay on "The Bee's Place in Nature." The essay was full of interesting facts regarding the natural history of the bee, and was listened to with great interest.

Mr. S. S. Sleeper followed with a very interesting historical sketch of the various societies of this county, devoted to the interests of the husbandman. He predicted for the Bee-Keepers' Association—the youngest of them all—a full measure of success and usefulness.

After a short discussion on "Queen-Rearing," the convention adjourned to meet in Buffalo, on Thursday afternoon and evening, Sept. 5, during the International Fair. By having our meeting at this time, we hope to meet some of the noted bee-keepers of the country, and have a social and interesting time.

O. L. HERSHISER, *Cor. Sec.*

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Aug. 20.—Northern Illinois, at Guilford, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

Aug. 31.—Haldimand, at Fisherville, Ont.
E. C. Campbell, Sec., Cayuga, Ont.

Sept. —.—Maine, at Livermore Falls, Me.
J. F. Fuller, Sec., Oxford, Me.

Sept. 5.—Erie County, at Buffalo, N. Y.
O. L. Hershiser, Cor. Sec., Big Tree Corner, N. Y.

Dec. 4, 6.—International, at Brantford, Ont., Canada.
K. F. Holtermann, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of futura meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

One Week's Work.—W. T. F. Petty, Pittsfield, Ills., on June 17, 1889, says:

The record of one colony of bees in my apiary, commencing with Sunday, June 2, is as follows: Sunday, 20 pounds; Monday, 12 ponnds; Tuesday, 6 pounds; Wednesday, 10 pounds; Thursday, 10 pounds; Friday, 10 pounds; on Saturday it was rainy, and consequently I took none from the colony. The total is 68 pounds.

Heavy Rains—Swarming.—Mr. Henry Willson, Clinton, Ills., on June 18, 1889, says:

We are having heavy rains every week now. White clover is coming out finely, where it had a start. Bees are working in the sections, but they are doing little so far, except to swarm.

Honey by the Barrel.—E. Stahl, Kenner, La., on June 17, 1889, says:

Bees have done finely this season. I started in the spring with 300 colonies, and increased them to 800 colonies, and have taken, up to date, 23 barrels of as fine, clear honey as can be found anywhere in the United States; and I am yet busy taking off more honey. I expect by the time the season is over, to have 50 barrels. My bees are all kept in one apiary, at home. All the barrels that I fill, hold nothing less than 51 or 53 gallons of honey. Who can say that this is a bad season yet?

White Clover is Thick.—A. R. Simpson, State Line, Ind., on June 15, 1889, says:

The recent rains have started the white clover up thick, and if we have the right kind of weather from this on, I think that we will have a good honey-season.

Spring of 1889.—S. E. Bowen, Shaytown, Mich., on June 15, says:

Bees did quite well the "first spring" of 1889, in this locality; but the "second," which I hope is past, starved out several colonies for some of my neighbors. I had one weak colony to which I fed syrup, and it is all right now.

Profuse White Clover Bloom.—Hiram J. Ward, Farmington, Kan., on June 10, 1889, says:

My bees have not paid very well for the last few years, yet they bid fair to do well this year. I have the supers on, and some colonies have them partly full. I will begin extracting to-morrow—all from white clover. It is very plentiful, and the bloom is profuse.

Enough Bloom, but no Honey.—Telah C. Whitney, Athens, N. Y., on June 17, 1889, writes:

A year ago last spring I sowed a little piece of alfalfa clover, also some Chapman honey-plant seed that I got from Washington. The alfalfa clover is in bloom, and has a kind of purple clover head; I have not seen a bee on it yet—all I can see that the bees work on, is raspberries and asparagus. There is plenty of white clover in bloom, but not a bee have I seen on it yet. I have a stalk of buckwheat in full bloom, right in front of one of my hives, and I have never seen a bee on it. It is very wet here, and bees are gathering no honey. A second swarm came out a week ago yesterday, which I put back; on Monday I looked into the hive, and I could not see as much as a drop of honey; so I fed them about two pounds of granulated sugar syrup, and let them go at that. They seem to be doing very well now. I have only the first swarms, as I put all second swarms back. I lost one large swarm; after hiving them, all went in nicely, and I went to dinner; when I returned, the bees were gone.

First White Clover Bloom.—C. H. Dibbern, Milan, Ills., on June 17, 1889, says:

The bees are now swarming freely, and are gathering honey from white clover. My first case of clover honey was all capped over, and ready to come off the hive on June 16. With good weather, our prospects are quite flattering for a full crop of very fine honey.

Good Harvest Expected.—J. L. Comstock, Sac City, Iowa, on June 17, 1889, says:

I put 36 colonies into the cellar on Dec. 7, 1888, all of which came through all right except three, which were queenless, and were robbed by the others, leaving 33 good colonies. White clover never looked so promising as at the present time, in this locality, and my bees are in fine condition to work on it. Basswood is just full of buds, so if nothing unfavorable happens, we can look out for a good harvest for the bees.

Report of the Will Co., Convention.—Gastavus Kettering, Secretary of the association, sends the following report:

The Will County Bee-Keepers' Association met on June 15, 1889, at Monee, Ills. The meeting was called to order by President A. Wicherts, and Gustavus Kettering, acting Secretary, read the minutes of the previous meeting, which were approved.

The following officers were elected for the ensuing year: A. Wicherts, President; and Gustavus Kettering, Secretary. As to whether there was any profit in bee-culture within the last two years in this neighborhood, it was reported that there was not much; that the weather had been too dry, especially in the year 1887, which killed out our white clover—the best honey-plant in this vicinity. The question, "What will be the prospect for bees and their keepers this year?" was dis-

cussed, and a majority thought that bee-keepers would be all right, providing that the wet weather would continue a few days longer, and assist the white clover, which is now coming up very thickly, which would make the bee-pasturage as good, if not better, than heretofore. It was decided that the President and Secretary call the next meeting the latter part of next September; the date and place to be announced in the AMERICAN BEE JOURNAL, and also to notify each member by postal card. The convention then adjourned.

Hives Boiling Over with Bees.—A. M. Day, Bowling Green, Mo., on June 15, 1889, writes:

My hives are boiling over with bees, and I never saw as much honey in the fields; no matter what kind of weather we may have, it will last over a month. My 42 colonies are all working in the sections, and some of them need tiering up. I have "hit the nail" this year—have doubled my bees, and will average $10 per colony on honey.

Very Rainy Weather.—E. W. Councilman, Newark Valley, N. Y., on June 15, 1889, says:

We are having a bad time here for bees and honey. Day before yesterday I had the first swarm, yesterday three swarms, and to-day one. Bees commenced in the sections two weeks ago, but have as yet accomplished nothing, on account of cool and rainy weather. For over two weeks, all kinds of farming has been at a standstill, on account of the rain. A neighbor 82 years old says that he has never known so wet a time. So bees must necessarily be kept back in their work.

Storm-Warners—Salt for Bees.—W. A. Hodge, Victory, Wis., on June 4, 1889, writes:

1. Do bees have a forecast or knowledge of an approaching change in the weather or cold storm, as do the migratory birds and other winged fowls, such as geese, ducks, etc.? In cleaning out my cellar, I put outside a barrel of cucumber pickles, put up in salt or brine, and the bees are swarming on it as they would on honey. Will they kill themselves, or not? 2. Will bees use enough salt or brine to injure the young brood, if placed where they can have as much as they will use? We had some very cold weather for May. White clover is a very heavy crop with us; the roadsides and fields are nearly white with it, but the bees do not seem to notice it—perhaps the cold and wet we have lately had is the cause. There seems to be no honey in it as yet. We had three or four quite hard frosts the last days of May, that killed corn, beans and tomatoes; but I think that our small-fruit crop will be large. Bees are working on blackberries and raspberries very strong. I have about five acres in small fruit, all loaded down with fruit, and with that and my bees I expect to be kept out of mischief for awhile.

[1. Yes; bees are sagacious storm warners. On the approach of thunder-storms, gentle bees sometimes become irritable, and will attack even their usual attendants. Anticipating a drouth, they have been known to store more water in their combs than usual.

2. Bees often hover over brine, and will dig into sawdust where brine has been thrown. They need some salt, but there is no danger of their taking enough to injure the brood from the pickle-brine mentioned. Salt is often scattered in the hives, and on the ground outside to drive away ants and moths.—ED.]

Two Colonies in One Hive.—F. W. Harvey, Mt. Auburn, Iowa, on June 12, 1889, writes:

If 2 colonies of bees should be placed one above the other, with but the lower entrance, each colony having its own queen and brood-combs, and separated by a honey-board that would keep the queens apart, would the bees affiliate and use the lower entrance? Our 220 colonies are just aching for something to do. There are acres of Alsike in bloom, but no honey. I am with Dr. Jesse Oren, learning the practical part of the art.

[All the bees of one colony would use the one entrance, without doubt, even if there are two queens in separate apartments—but trouble may come from one queen becoming aware of the presence of another, unless they may be a mother and daughter.—ED.]

Prospects Never Better.—Byron Iiams, Worcester, Mo., on June 17, 1889, writes:

The weather is fine, and bees are booming. White clover is the finest for years here. Bees got a good start on it from May 20 to the 27th, then rain and cold weather interfered until June 3, when everything became fair and lively, and so continues. My 24 colonies wintered on the summer stands without any loss, and have increased, by natural swarming, to 42. I have extracted 200 pounds of honey, and have some 400 or 500 pounds now ready to take off. The prospects were never better here for a honey crop. Spanish-needle—our source of the main and sure honey crop—carpets all fence-corners and waste-places. You can look out, Mr. Editor, for another "fabulous" report from this direction, when the season is over; and I would like for "Ye Editor" to peep into my honey-house about that time.

Unfavorable Weather, etc.—D. Millard, Mendon, Mich., on June 10, 1889, says:

Bees in this locality wintered with trifling loss. They have bred up strong, and a few swarmed in May. On May 29 a severe rain-storm set in, and on May 30 it snowed nearly 2 inches, followed by sleet and rain that lasted for 2 or 3 days; after which the weather brightened up, but it has been wet and cold up to date. Colonies are strong, but very short of honey. Should it turn warm again soon, the prospect for a crop of honey would be good.

Cold and Wet Weather.—V. N. Forbes, West Haven, Vt., on June 14, 1889, writes:

Bees in this vicinity generally came through the winter in excellent condition, and the very warm weather of April was favorable for their building up rapidly; but that was followed by very wet and cold weather the latter part of May, which told seriously on the bees. Fruit-bloom did not amount to much for the bees; raspberries were loaded with bloom, and honey, too, but the cold and wet of the last three or four weeks has very nearly caused a failure from that source, and that is a serious one, as we depend largely upon the raspberries for the bees to get filled up, and ready for the clover. There is a good show of clover, and if the weather is as favorable as for the last three or four days, we may have some honey yet.

An Old Bee-Keeper.—C. W. Hellems, St. Catherines, Ont., on June 11, 1889, writes:

Last year was the poorest one for honey that I have ever seen. I have always kept bees in a small way, ever since I have kept house, which is now over 51 years, and I was about the first one in this section of the country that

made use of the Langstroth improvements in movable-comb hives when they first came out, and I found it a great advance over the box-hive. I found a description of them, at that time, in the *Scientific American*. Bees are not doing well here this season yet; the weather has been very cool and wet so far, but to-day it is quite warm, and bees are taking in some honey. I am now in my 81st year, and my sight is rather poor; I have thought that a "magnifier," like the one described on page 381, might help me some in looking for bees' eggs.

Bee-Culture and the Weather.

—Marion Miller, Le Claire, Iowa, on June 10, 1889, writes:

The spring in this part of Iowa was very favorable for bee-keepers—the weather was nice and warm very early, and at the close of fruit-bloom all the hives contained more honey than usual at that time of the year; but the weather changed to cloudy, rainy and cold, and remained so for about four weeks, during which time the honey contained in the hives was nearly used up—in fact, feeding became necessary to prevent starvation. Since then we have had a few days of nice honey-weather, but the rain has commenced again, and no telling when it will quit. The bee-keepers surely have had, and are having a hard road to travel; for the business appears to depend more upon the kind of weather than almost any other business.

Sweet Clover on the Roadside.

—C. A. Huff, Clayton, Mich., on June 15, 1889, writes:

Will you please tell me whether or not it is lawful for a person to sow sweet clover in the road, on the side next to his own place. As the editor of the AMERICAN BEE JOURNAL and Mr. A. I. Root advise bee-keepers to sow it by the roadside, I took it that I had the right to sow it on the roadside, along by my place, and it is making some talk. People say that it is worse than Canada thistles, and pull it up if it gets on their side of the road. I care nothing about that, but when they want me to pull and dig it up on my side, I am not going to do so, unless I am obliged to, as it does no harm, and I tell them so, but all to no use. There is lots of it in the road a few miles away from here, and I have never seen it spread in the fields.

Bees are in poor condition here. We had heavy frosts in May, and on May 29 and 30 it rained very hard all day, and at night the thermometer was at 40°, and was very cold and cloudy for several days afer the rain; but it is now warmer, and the bees are at work on the clover. A good many bees starved during and after the storm and cold weather.

[As the land to the middle of the street belongs to the owner of the fields, he can sow what he pleases on the roadside, unless it be a noxious weed which is prohibited by law. Sweet clover is neither prohibited nor is it a noxious weed. It will not spread into the fields, and dies root and branch after the second season. To cut it two seasons, before the seed matures, will free the land from it entirely. It is in no manner like Canada thistles, except in that it is an excellent honey-producer.—ED.]

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Doolittle on Queen-Rearing	2 00	1 75
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Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

Honey and Beeswax Market.

CHICAGO.

HONEY.—The old crop is about exhausted, and not any new has been offered, especially is the foregoing applicable to the state of the comb honey market. Extracted, very little demand, at 7@8c.
BEESWAX.—25c. R. A. BURNETT,
June 10. 161 South Water St.

DETROIT.

HONEY.—No attractive honey in the market, and sales are slow at 12@15c.
BEESWAX.—24@25c.
June 22. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—We quote: White 1-lbs. 15@16c.; dark, 10@12c.; California white 2-lbs., 11@12c.; amber, 10@11c. Extracted, white, 7@8c.; dark, 5@6c. Our market is in good condition for the new crop.
BEESWAX.—20c.
May 11. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Extracted, in barrels, 6¼@6¾. Excellent demand for clear, bright in barrels. Dark, 5¾@6c.
BEESWAX.—Scarce at 23c. for prime.
May 22. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—Extracted in good demand. We quote: Fine orange-bloom at from 7@7½c.; off grades of Southern, 60@70c. per gallon.
BEESWAX.—Scarce, at 26½@27½c. for good.
HILDRETH BROS. & SEGELKEN,
June 6. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote: 1-pounds selling from 16@18c.; 2-lbs., 15@16c. Extracted, 8@9c. Sales very slow.
BEESWAX.—None on hand.
June 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb., Demand slow for table use, and fair from manufacturers. Several lots of new comb have arrived, but quality being off, it finds slow sale at 12@14c.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
June 22 C. F. MUTH & SON, Freeman & Central Av.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Hastings' Perfection Feeder.—This excellent Feeder will hold 2 quarts, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

Cheap Extracted Honey.—We have a keg of DARK HONEY, weighing 164 pounds, net, suitable for feeding to bees, which we will sell at **6 cents** per pound, delivered on the cars here.

Convention Notices.

☞ The Northern Illinois Bee-Keepers' Association will hold its next meeting on Aug. 20, 1889, at R. Marsh's, in Guilford Township, 4 miles northeast of Rockford, Ills. D. A. FULLER, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Any one desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec. Brantford, Ont., Canada.

Advertisements.

ITALIAN AND ALBINO QUEENS, By Return Mail. Tested, $1; Untested, 75c.; 3-frame Nuclei, with Tested Queen, $2.50; 4-frame, $2.75. BEES by the lb., 75 cents. Address,
26Alt **GEO. STUCKMAN**, Nappanee, Ind.
Mention the American Bee Journal.

ITALIAN Queens, Tested, $1.25.; Untested, 75c., 3 for $2. Circular of Bee-Supplies, &c. *free.* JNO. NEBEL & SON, High Hill, Mo.
20Atf
Mention the American Bee Journal.

QUEENS.

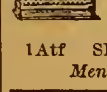
BEE-KEEPERS, do you want carefully-bred QUEENS, from stock which has shown itself as good workers, and which you can feel convinced will give "new blood" in your apiary? Prices:

	Each.	3 at once.	6 at once.
Virgin	$ .50	$1.20	$2.00
Untested	1.00	2.75	5.00
Tested	2.00	5.50	11.00
Select Tested	3.00	9.00	18.00

If so, address, **R. F. HOLTERMANN**,
26A8t ROMNEY, ONT., CANADA.

☞ American Bills (postage stamps for fractions of a dollar) taken at par.
Mention the American Bee Journal.

Patent Flat-Bottom Comb Foundation



High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free
J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.
Mention the American Bee Journal.

British Bee Journal

AND BEE-KEEPERS' ADVISER,

IS published every week, at **6s. 6d.** per annum. It contains the very best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley Herts, England.
Mention the American Bee Journal.

TAKE NOTICE!

BEFORE placing your Orders for **SUPPLIES**, write for prices on One-Piece Basswood Sections Bee-Hives, Shipping-Crates, Frames, Foundation, Smokers, etc. Address,
R. H. SCHMIDT & CO.,
25A26t NEW LONDON, Waupaca Co., WIS.
Mention the American Bee Journal.

April 1st. For 60 Days. 1889.

WE have a large stock of **ONE-PIECE SECTIONS** on hand, which are **first-class.** To reduce stock, we will name a very low price on them, in 1,000 or 100,000 lots. Also **Hives, Smokers and Brood-Frames.** Do not fail to tell us what you want, or send for our Price-List. Address,
SMITH & SMITH,
24Etf KENTON, Hardin Co., OHIO.
Mention the American Bee Journal.

TRY THEM

ONE of our **Beautiful Golden Italian QUEENS,** reared by our New, Practical and Natural Method.

Warranted Queens, either Carniolan or Italian, each, $1; **Select,** each, $1.25; **Tested** each, $1.50.

We have had **30 years' experience** in the Rearing of Queens, and 25,000 of our customers will tell you that the **Purity, Beauty** and **Quality** of our Queens are not excelled.

HENRY ALLEY,
24Etf WENHAM, Essex Co., MASS.
Mention the American Bee Journal.

ITALIAN BEES, QUEENS, and EGGS from Light Brahma and Wyandotte Poultry One Untested Queen, $1; three for $2. Eggs, $2 for 13. Price-List Free.
Address, **H. G. FRAME,**
10E13t NORTH MANCHESTER, IND.
Mention the American Bee Journal.

Queens by Return Mail.

Having filled all Orders, I can from now on send

QUEENS

by **return mail. Tested,** in June, $2 00; after, $1.50. Warranted, $1; 6 for $5. A **liberal discount** to dealers and for large Orders. Make all Money Orders payable at NICHOLASVILLE. Circulars **free. Only Italians.**

J. T. WILSON,
18Etf LITTLE HICKMAN, Jessamine Co., KY.
Mention the American Bee Journal.

SECTIONS, first-class, $3.00 per 1,000, and **Foundation** cheaper than ever. Dealers will do well to get our Prices. **Alsike Clover, Japanese Buckwheat,** &c. Free Price-List and Samples. **M. H. HUNT,**
2E13t BELL BRANCH (near Detroit,) MICH.
Mention the American Bee Journal.

An Elegantly Illustrated Monthly for the
FAMILY AND FIRESIDE,
$1.50 a Year. Sample Copy Free.

Printed in the highest style of the art, and profusely embellished with Magnificent and costly Engravings.

The Illustrated Home Journal is a moral, high-toned and intellectual educator, and is invaluable in every library, as well as a very attractive and inspiring ornament in every drawing-room. Each Number of it contains 36 pages.

Its stories are elevating in tone, as well as charmingly thrilling and captivating; its historical and biographical sketches are fascinating and delightful; its Department for "Our Young Folks" is enticing and alluring; and its miscellaneous matter leads to the higher life, and the moulding of more beautiful thoughts and affections.

It should be found in every family, and should take the place of the impure and trashy publications, which now abound, and are a curse to the rising generation.

It will be Clubbed with the American Bee Journal, and both mailed to any address in the United States or Canada, one year, for **$2.00.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, - CHICAGO, ILLS.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. July 6, 1889. No. 27.

EDITORIAL BUZZINGS.

R. F. Holtermann, Secretary of the International Bee-Society, who has for the last five years been in charge of the bee-keepers' supply business of E. L. Goold & Co., Brantford, Canada, and lately edited the *Canadian Honey Producer*, has left for Romney, Kent Co., Ont.

Mr. Holtermann, although only on salary, has, we believe, given first place to the interests of those with whom he has been employed. He will continue to edit the *Canadian Honey Producer* until the end of the present volume. Bee-keeping and store-keeping combined, will occupy his attention hereafter. He writes: "I am going to an excellent locality for clover and an abundance of basswood and excellent fall pasture; no bees at all are kept within three miles, and I believe even four."

The Prospect Brightens for a good crop of honey. As a sample of the many, we give these few lines from C. A. Bunch, of La Paz, Ind., dated June 27, 1889:

Look out for a big crop of clover honey this season. The bees in this neighborhood have been working between showers on red, Alsike and white clover equal to any season that I ever saw.

Mr. Bunch sends us a sample of his bees. They are very fine, large, and bright in color.

Many Good Advertisers invite our readers to send for their descriptive Circulars, etc. It will pay to get these, and see what is for sale, by whom, at what prices, and what things are offered. Every one can learn something in this way. Please always tell advertisers *where* you saw their cards; they like to know, and we like to have them.

More Falsehoods.—The Chicago *Daily News* of June 27, 1889, contained an article on page 6, which, for misrepresentations and unmitigated untruths "beats the world!" The last paragraph reads thus:

The worst enemy of the honey-raiser is the producer of artificial and adulterated honey. It is easy to adulterate honey, but only recently have men become ingenious and skillful enough to make honey in the comb, both the honey and the comb being artificially produced. The spurious product looks almost exactly like that created by bees, and it is put up in the little square boxes, windowed sides, like those used in hives. It is possible to detect the imitation only by tasting it, by which test anybody who has a tooth for genuine honey can easily detect the fraud. The counterfeit is so skillfully executed, however, that it frequently deceives a novice. A New York man in a restaurant in this city the other night called for honey in the comb, and five boxes were purchased for him at as many different groceries before one of genuine honey was obtained. He then described the method of artificial honey-making, and in conclusion said that he was a drummer for a New York honey-house.

We defy the *Daily News* to bring proof of its foul charges, and we *brand* them as lies without the least shadow of truth to rest on!

There is no such thing in existence as combs *made* of paraffine, or similar substances, and filled with glucose, which the *Daily News* calls "artificial honey!"

There is no such "spurious product" which "looks almost like that created by bees, and is put up in the little square boxes with windowed sides, like those used in hives!"

There is no "counterfeit" comb honey "so skillfully executed that it frequently deceives a novice," or "any other man!"

The silly story, or, more properly, the wilful lie, which the *News* parades in proof of its "comb honey" story, is simply diabolical!

The idea of a New York man in a "restaurant" calling for honey in the comb, waiting there for the "buyer" to go out *five* different times and buy a "box" at five "different groceries," just to please a single guest! New York men do not wait a couple of hours at a meal, for different courses, and especially not for an article to be purchased for them five times in one course!

Restaurant keepers do not undertake to buy at retail for any single eater; they buy at wholesale, lay in a stock, and if anything is called for not in stock, they are so informed, and that ends it!

New York men, and especially "drummers," are too busy to spend so much time, even if restaurant keepers would go out and buy, at five different times, from five different grocers, a single box of honey to accommodate a notional crank! These "drummers" are after *business*—not such foolishness as that!

New York honey-houses do not have *drummers* out to sell honey—especially at this time of the year when the old crop is nearly exhausted, and the *new* crop is not yet harvested!

No "factory" for making the so-called "artificial honey" is in existence, and hence it could not send out such a "drummer!"

No such "artificial honey" with combs "artificially produced" is in existence! If one such "paraffine comb filled with glucose and sealed up by machiney" (as the newspapers so often put it) is produced—yes, even *one* is presented at this office—it can take a thousand dollars, which is offered for the proof of the existence of such an artificial humbug!

Now the *Daily News* should either produce one of those "artificial boxes of honey" that are so plentiful at the groceries that "five boxes were purchased" "before one of the genuine honey was obtained"—or else make an apology and retraction for publishing such villainous falsehoods!

Paris Green on Potatoes.—S. R. Norton, Lemont, Ills., on June 22, 1889, writes this inquiry:

Would there be any danger of poisoning my bees if I use Paris green or London purple on my potato vines, to destroy the bugs? The potatoes are in bloom.

At our request, Prof. Cook replies to this question, in these words: "There is no danger of using Paris green or London purple on potatoes. The bees do not gather nectar from potatoes, and so could not get the poison. Indeed there is no danger of spraying our orchards except when the trees are in full bloom. At that time spraying should never be done."

Comb Foundation is now in almost universal use. Those who object to it, do so principally on the ground of cost. Its use in the brood-chamber pays well in results; but in sections, for comb honey, is where its utility is more manifest. Of course none should there be used but thin, which is made expressly for the purpose. Its use greatly aids shipping—for breakages are less frequent than when only natural comb is allowed.

New Posters for the AMERICAN BEE JOURNAL, printed in two colors, have just been printed, and will be sent free to all who can use them. They are very handsome, and will "set off" an exhibit at Fairs. It will tell Bee-Keepers how to subscribe, for "Subscriptions Received Here" is quite prominent at the bottom.

We will also send sample copies of the BEE JOURNAL, for use at Fairs, if notified a week or ten days in advance where to send them.

Lindens were reported on page 403, to be stripped of buds and leaves in Minnesota. Now we have another report from that State. C. Theilmann thus writes on June 28:

Lindens here are loaded with good, sound buds, which will open in a few days. I have traveled about ten miles this morning through a timbered country, and nearly every linden tree is loaded with buds. White clover is in full bloom also, but we have too much cloudy weather.

GLEAMS OF NEWS.

The Paris Exposition.—The Paris correspondent of the *British Bee Journal* has this to say about the Bee and Honey Department:

I may say that only three countries are at all completely represented. These are the United States, who have a general collection grouped together from all the principal manufacturers there; France, with one fairly complete installment, but many of the goods in this are apparently of English manufacture; and Great Britain, represented solely by Mr. Thomas B. Blow, with a large and imposing collection of both appliance and honey and wax, also working bees.

All the collections of bee-keeping appliances are situated in the Agricultural Galleries, which stretch right away from the main entrance of the Esplanade des Invalides to the Camp de Mars. For the guidance of English visitors who may wish to see the various collections of bee-keeping appliances, I would advise that they should enter the Exhibition by the Invalides entrance, which is the one nearest to Paris, and is quite close to the Place de la Concorde. The Pont de la Concorde should be crossed, and the turn to the right taken (opposite is the Chamber of Deputies), and the handsome and imposing entrance is straight ahead.

The Agricultural Galleries commence quite close to this entrance, and are altogether about one mile in length, and apart from bee-keeping are well worth a visit. Mr. Blow's exhibit is quite close to the entrance of the first gallery, and we are quite sure that he will be glad to be of any service possible to any English bee-keepers who may call upon him.

John Y. Detwiler has certainly "raised a breeze" in Florida! He was the first editor of a paper called the *Breeze*, which is published at New Smyrna, and is now in its third year. In its issue for last week, we notice the following:

J. Y. Detwiler, on the peninsula, is engaged quite extensively in bee-culture, and has made the business quite remunerative. He has given the subject a great deal of study in all its branches, and has edited the bee-department of several agricultural periodicals. He was the first editor of the *Breeze*.

Plant-Louse.—H. W. Haag, Pettit, Ind., sends a "bug," and writes thus to Prof. Cook: "I enclose some kind of an insect pest, that is injuring wheat and oats in this vicinity. Will you please answer in the AMERICAN BEE JOURNAL, telling what it is?" Prof. Cook sends the following, which he has prepared concerning it:

THE GRAIN APHIS.—In Indiana it is called, very incorrectly, the "green midge." This plant-louse is very abundant, and often does serious damage to wheat, rye, barley, and oats. Like all the *aphides*, it sucks out the juice, and thus ruins the grain. Dry weather is favorable to the growth and development of all plant-lice, and, no doubt, the exceedingly dry spring—April and May—explains the great abundance of this grain *aphis* this season. It is probable that the abundant rains of June will lessen their numbers and injury. I hope that the rains are in time to prevent any serious mischief.

Although we know how to kill plant-lice, and can always do so by the use of kerosene and soap mixture, yet the very nature of the case prevents the use of this specific in case of this grain *aphis*. There is no way to apply the remedy in this case without doing more harm than good.

This grain *aphis* has often been observed, and has not infrequently done great harm. One comforting fact may be given: This enemy rarely confronts the farmer's success on two successive years.

The Chicago Tribune of Sunday, June 23, 1889, at the bottom of the fourth column, on page 16, contained an article with this heading: "The Busy Bee's Occupation Gone—Paraffine Honey-Comb Filled with Glucose Honey." It then avers that bee-keepers have been guilty of adulterating their honey, and then made a "great discovery," which it describes thus:

This was that glucose, or grape sugar, closely resembled honey in appearance, and was a very fair counterfeit as far as taste was concerned. Then there appeared in the market paraffine honey-comb filled with glucose honey, and the occupation of the bee was gone. The first attempt was simply an adulteration of honey with glucose, and the proportion of the latter was gradually increased until there was little or no honey.

The above, together with the whole article, copied from the Philadelphia *Record*, is *an unmitigated falsehood!* We call upon the *Tribune* to retract it, and thus show its desire, at least, to be just, and treat every honest pursuit honorably. Surely, this is an age of misrepresentation!

Encouraging Words are always welcome: when they come from a lady, they are doubly welcome; and when that lady is one held in universal esteem, its welcome is greatly enhanced thereby. Her Royal Highness, the Princess Christian, is honorary President of the Berkshire Bee-Keepers' Association in England, and addressed to that body, at its late session, the following very encouraging communication which we extract from the *Berkshire Bee-Keeper*, published at Reading, England:

I am glad to hear that the interest in bee-keeping is decidedly increasing throughout the country, and that with the cottager class a more humane method of taking the honey is superseding the old "rough and ready" system. There is a question which I do not think has yet been sufficiently answered, as to how far bee-keeping, except perhaps on a large scale, has been found to pay, and yet no doubt the hope that it will be a source of income, is a great inducement to keep bees. Apart, however, from the "profit-and-loss" view of the subject, associations of this kind do good in many indirect ways. A bee-keeper to be successful must study the habits of bees, and the interest of the subject will well repay him for the time and attention he gives to it.

Again, any scheme which brings persons of different classes together, who would not perhaps otherwise meet, must have a beneficial effect. These County Associations promote good fellowship, stimulate a healthy rivalry, and encourage interchange of ideas. They break down those accidental barriers between class and class which so often prevent one section of society from coming in contact with another, to their mutual advantage.

I have often remarked that sociability seems a special characteristic of bee-keepers; they have interests in common; there is a bond of sympathy between them. The experience and the scientific knowledge of the professional are placed at the disposal of the beginner, who knows that he can always get help and advice; and in his turn he is prepared in after years to assist others in the same way. All such intercourse is most desirable, and is in every way to be encouraged.

I am told that a London Guild has in contemplation the founding of an Agricultural College, and it has been suggested that something might be done in connection with such a scheme to forward the "honey industry." It would give a great impetus to bee-keeping throughout the country, were so important a society as the Mercers' Company to lend its powerful aid to the development of this subject....

The last two bad honey seasons have, I fear, had a very discouraging effect on bee-keepers, especially on those of the cottager class, and something must be done to revive the spirits of those to whom the last inclement season has brought nothing but disaster. I venture to express a hope that the changes that have lately been made in the rules of organization of this association may prove beneficial to the members. I trust that none will be discouraged by past failure. It may be true of bee-keeping as of other vecotures, "That there is a tide in the affairs of men which, taken at the flow, leads on to fortune." HELENA.

Cumberland Lodge, May, 1889.

Tiering Up, etc.—J. F. Gile, Basswood, Wis., on June 24, 1889, asks the following questions:

1. Is sweet clover desirable for hay?
2. Will it do to tier-up when comb honey in brood-frames is wanted?
3. I have a nucleus covering five Gallup frames, that is queenless, and to which I have given a frame of unsealed brood at two different times. The last time I examined them, I found three empty queen-cells, but no queen or eggs deposited. What is the cause of this?

1. No. 2. No. 3. It is sometimes difficult to account for the action of bees, not knowing all the circumstances. If they have laying-workers, that may account for it.

Poisoning Bees.—Prof. A. J. Cook, to whom we referred the matter of Legislation relative to the use of London purple when trees are in bloom, in Michigan, writes as follows to us, relative thereto:

You may be sure that I will attend to the matter of Legislation on the London purple question, at the first opportunity. It is a matter of vital importance, and I am glad you are moving energetically. I felt sure you would, as you are always ready to strike when our industry is assailed.

After the first one hundred days, our Legislature is not permitted by the Constitution to introduce new Bills. Thus it was too late to move in the matter with our present Legislature, when my attention was first called to the danger. I have never heard of any loss until this year.

I have again called attention to the matter in the New York *Tribune*. I will do so in other papers.

It is unfortunate that the Michigan Legislature could not have dealt with this matter at the session which closed last week, after a six months' sitting. It passed bills to reduce railroad fare to two cents per mile, and to enact "local option."

Bees Not a Nuisance!—Last week we gave in brief the decision of the Supreme Court of Arkansas in the celebrated bee-lawsuit of the City of Arkadelphia *vs.* Z. A. Clark. We expected to be able to give the decision of the Judge in full, this week, but in this we are disappointed. We have made several applications for a copy of it, but so far have not succeeded in procuring it. We will give it to our readers as soon as it comes to hand.

At present it is enough to know that the National Bee-Keepers' Union has succeeded in making itself felt, and has obtained the first decision on the question of whether bee-keeping can be lawfully construed as a nuisance or not.

The **highest Court** in that State, on an appeal from the decision of the Circuit Court in favor of the bees, has again **decided**

This Rooster Croweth for the Bees, because the Bees cannot Crow for Themselves.

that the pursuit of bee-keeping is legitimate and honorable—that bees are not a nuisance!

We now warn all the "ignorant" and "prejudiced" to keep their hands off—and inform them that bee-keepers have **rights** guaranteed by the Constitution of the United States, **that all are bound to respect.**

The **Decision of that Supreme Court** is a document that will become of great use as **a precedent.** It will be a guide for the rulings of Judges—for the information of Juries—and for the regulation of those who may dare to interfere with a respectable pursuit by law or otherwise!

The National Bee-Keepers' Union, in this one instance alone, has been of great **benefit** to bee-culture, even though it has received but very poor encouragement and support from bee-keepers in general!

Its legitimate work, however, is but just begun, but if it is to continue in the good work, it must be supported both by the financial as well as moral influence of all the apiarists of America.

The General Manager has labored incessantly, without the hope of reward, except such as comes from a consciousness of having done his full duty. Reader, have you discharged your full duty in this matter?

To Stay at Home is Best.

Stay, stay at home, my heart, and rest;
Home-keeping hearts are happiest,
For those that wander they know not where
Are full of trouble and full of care;
To stay at home is best.

Weary and homesick and distressed,
They wander East, they wander West,
And are baffled and beaten and blown about
By the winds of the wilderness of doubt,
To stay at home is best.

Then stay at home, my heart, and rest;
The bird is safest in its nest;
O'er all that flutter their wings and fly,
A hawk is hovering in the sky;
To stay at home is best.

—*Longfellow.*

Some Legends and Superstitions About Bees.

As originally printed by Lippincott & Co., Philadelphia, some 23 years ago, the *Bee-Keepers' Magazine* gives some curious "Legends and Superstitious Beliefs and Ominous Signs" connected with bees, as follows:

I. "A certaine simple woman having some stals of bees which yielded not unto her hir desired profit, but consume and die of the murraine; made her mone to another woman more simple than hir self; who gave counsel her to get a consecrated host or round Godamighty and put it among them. According to whose advice she went to the priest to receive the host; which, when she had done, she kept it in her mouth, and being come home againe she took it out and put it into one of the hives. Whereupon the murraine ceased, and the honey abounded. The woman therefore lifting up the hive in the due time to take out the honie, sawe there (most strange to be seene) a chapel built by the bees with an altar in it, with the wals adorned with marvelous skill of architecture with steple with bels. And the host being laid upon the altar, the bees making a sweet noise flew round about it."

II. "A certain peasant of Auvergne, a province in France, perceiving that his bees were likely to die, to prevent this misfortune, was advised, after he had received the communion, to reserve the Host and blow it into one of the hives. As he tried to do it, the Host fell to the ground. Behold now a wonder! On a sudden all the bees came forth out of the hives, and ranging themselves in good order, lifted the Host from the ground, and carrying it upon their wings, placed it among the combs. After this, the man went out about his business, and at his return found out that the advice had succeeded ill, for all his bees were dead."

From Butler's "Lives of the Saints" we have the following:

III. "The birth of St. Ambrose happened about the year 340 B. C., and whilst the child slept in one of the courts of his father's palace, a swarm of bees flew about his cradle, and some of them even crept in and out of his mouth, which was open, and at last mounted into the air so high that they quite vanished out of sight. This," concludes the Reverend Alban, "was esteemed a presage of greatness and eloquence."

In East Norfolk, England, if bees swarm on rotten wood it is considered portentous of a death in the family.

IV. In Western Pennsylvania it is believed that bees will invariably sting red-headed persons as soon as they approach the hives.

V. A North German custom and superstition is, that if the master of the house dies, a person must go to the bee-hive, knock and repeat these words: "The master is dead, the master is dead," else the bees will fly away. This superstition also prevails in England, Lithuania, and in France.

VI. On swarming is found the following observation in Tusser Redivius 1734, page 62: "The tinkling after them with a swarming-pan, frying-pan and kettle, is of good use to let the neighbors know you have a swarm in the air, which you claim wherever it alights; but I believe that it is of very little purpose to the reclaiming of the bees, which are thought to delight in no noise but their own."

To cure stings:

VII. "Moreover, as many as have about the bill of a woodspeck (woodpecker) when they come to take honey out of the hive, shall not be stung by bees."

VIII. Longfellow, in his song of Hiawatha, in describing the advent of the European to the New World, makes his Indian Warrior say of the Bees and the White Clover:

Wheresoe'er they move, before them,
Swarms the stinging fly, the Alimo,
Swarms the Bee, the honey-maker.

Wheresoe'er they tread, beneath them
Springs a flower unknown among us,
Springs the White Man's Foot in Blossom.

Frank Leslie's Popular Monthly for July has a picturesque and well-illustrated article, entitled, "Into Oklahoma with the Boomers," giving much interesting information about the settlement of the Promised Land, as well as of the adjoining Cherokee Strip. "The Samoa Cyclone" vividly depicts the great naval calamity of last March, which has been compared to the historic destruction of the Spanish Armada. The biographical and natural history papers, sketches of travel, short stories, poems, etc., are numerous and excellent.

QUERIES and REPLIES.

Moving Bees Nearer to the Basswood Bloom.

Written for the American Bee Journal

Query 640.—What difference would it make in the amount of honey gathered in moving bees ¾ of a mile in the direction of basswood and bottom-land, instead of remaining from 1½ to 3 miles away, where they now are?—Illinois.

I should expect, perhaps, one-third more. —WILL M. BARNUM.

I have no facts to found a judgment upon.—R. L. TAYLOR.

I could only guess; possibly 20 per cent. increase.—C. C. MILLER.

Not enough to pay for the moving, as you state it.—G. M. DOOLITTLE.

I have never tried it, but I believe that it will often pay handsomely for the trouble.—EUGENE SECOR.

Perhaps one-third in the amount of surplus from basswood.—G. L. TINKER.

I could only guess, and guesses are not very satisfactory. Only guesses can be given to such questions.—A. J. COOK.

I do not think that it would pay for the trouble.—C. H. DIBBERN.

I have no experience along this line. I should not expect much difference.—J. M. SHUCK.

Not difference enough to pay for the trouble of moving, I should say.—JAMES HEDDON.

I do not think that it would make any great difference in so short a distance.—J. P. H. BROWN.

I would prefer to let them remain where they are, than to move them only ¾ of a mile.—P. L. VIALLON.

At a rough guess, I would say from one-half to twice as much more.—J. M. HAMBAUGH.

I do not think that any appreciable difference would be found; certainly not enough to pay for moving.—J. E. POND.

It might make considerable difference. A neighbor living 1¼ miles from me had his hives filled up with basswood honey one year, when I had none at all.—MAHALA B. CHADDOCK.

It is difficult to say what the difference would be. We have had the best results (other things being equal) where the flight of our bees has not been over one mile, or thereabouts.—MRS. L. HARRISON.

It would make some difference, but how much, could not be determined without many and careful experiments; but ¾ of a mile could not make much difference.—M. MAHIN.

I do not know what the difference would be, but I should not expect much yield from flowers three miles away. One season I got an average of 70 pounds (from 75 colonies) of extracted sweet clover honey, from a locality about 2½ miles away from the clover. —A. B. MASON.

I cannot say what the difference would be in the case you mention, but I know by experience that your bees would do much better work if they were located in the midst of the harvest field. There is more importance attached here than many good bee-keepers seem to be aware of.—G. W. DEMAREE.

It would probably make some difference, but hardly enough to pay for the trouble of moving them the distance mentioned.—THE EDITOR.

Supers with a Bee-Space at the Bottom.

Written for the American Bee Journal

Query 641.—I use the open one-piece sections with the wood strips to rest the sections on; these fit close at the ends, which is not the case if I use the **T** tins. Old bee-keepers tell me that a super is not as good with a bee-space at the bottom, as at the top. Is it not as good? If not, why not?—Bee-Man.

Yes, it is as good.—MRS. L. HARRISON.

I prefer the space at the bottom.—WILL M. BARNUM.

The difference lies in the ease of manipulation.—G. M. DOOLITTLE.

I find no difference as regards the space—but I *prefer* it at the bottom.—J. P. H. BROWN.

I use supers with a bee-space at the bottom. I have had no experience otherwise.—J. M. HAMBAUGH.

It is just as good, but it costs more to make it.—G. L. TINKER.

I do not use separators, and have had no experience with the **T** super. —MAHALA B. CHADDOCK.

I have had no experience with a bee-space at the top of either the super or the hive.—A. B. MASON.

I see no difference, if hives, honey-boards, etc., are made to correspond. I do not think that the bees care.—A. J. COOK.

I prefer a bee-space both at the top and at the bottom. There are many reasons for such, but it would require more space than is allowed here, to explain fully.—P. L. VIALLON.

One reason is, that if a section projects above the edge of the super, as it sometimes will if a bee-space is at the bottom, another super will not fit on top.—C. C. MILLER.

My supers have a "bee-space" in both the bottom and the top, and it seems, to me at least, that it is forever settled that I would not have them any other way.—J. M. SHUCK.

I do not see that there can be any difference to the bees, where the space is; the only questions to consider are economy, availability and practicability. Possibly I do not understand the question, it being rather blind; but I answer it as I do understand it. —J. E. POND.

Because it is very important to have a bee-space at the top of the hive, and the case, so that the cover can be quickly put on without crushing bees. Also, if there were no bee-space between the sections and cover, the sections would be badly glued.—R. L. TAYLOR.

I understand that your sections are side-opening, and I consider such sections no advantage in any way, and do not look so well. There is no difference whether the bee-space is in the top or bottom of the case, so that they are uniform.—C. H. DIBBERN.

I want a bee-space at both the top and the bottom. The one at the bottom should be in the top of the hive, or in the honey-board; and the one at the top should be in the top of the super. Most hives and fixtures are made that way; if not, they should be. The space here forbids giving reasons. —EUGENE SECOR.

All well-made standard hives—I mean the brood-chamber—are made so as to have the tops of the frames a bee-space below the upper rim of the hive; or, as I prefer them and make them, with half a bee-space at the top and bottom, and this necessitates making the cases so as to adjust the sections either flush with the bottom, or with the divided bee-space. It is simply a matter of taste, or a matter of mechanical convenience. I have had cases in all the "ways" in use, and as to the amount of honey stored, I have seen no difference.—G. W. DEMAREE.

No, your super is not a good one. Wood strips are not at all proper for sections to rest upon. If you have a bee-space in the bottom of the super, and one in the top of the hive, you bring two bee-spaces together, and that is simply disastrous. If there is no bee-space in the top of the hive, the wooden rest would be glued to the top of the frames. It is always the best and only proper place for a bee-space, at the top of all brood-cases and surplus-cases. Proper manipulation with the bottom-boards and covers makes this true. There is not space enough to explain it all here.—JAMES HEDDON.

I prefer wood strips for the ends of the sections to rest on. I have strips the width of the sections nailed on the bottoms of the section-cases; these

have openings corresponding with the openings between the sections. Strips the thickness of a bee-space are laid across these slats for the ends of the sections to rest on; but the openings between the slats and between the sections, while corresponding in size and shape, are not one over the other, but the joints are broken. There is thus a double bee-space, *a la* Heddon. The plan works well every way.—M. MAHN.

Bee-spaces should be at the top to prevent the crushing of bees, in all hives, cases, supers, etc., then there is a bee-space between each. — THE EDITOR.

CORRESPONDENCE.

HIVES.

The "Coming" Hive—Prevention of Swarming.

Written for the American Bee Journal
BY GEO. F. ROBBINS.

Mr. J. E. Pond, on page 377, refers to Mr. Tefft's article on page 346, on the "Coming Hive," and proceeds to argue that the "coming hive" "is here." This hive he claims to be the "ordinary Langstroth," made 14½ inches wide, to take a frame holding—in length I suppose—four 4¼x4¼ sections.

Suppose that we agree that the hive is here, in the shape of the "ordinary Langstroth"—that hive *does not* contain ten frames. The ten-frame hive men are in the minority in this day of apicultural progress. It has, it seems to me, been demonstrated quite often enough, that eight Langstroth frames are sufficient to accommodate any queen. Seven frames will usually, if not always, be all that a queen can fill in 21 days. We add one extra frame for pollen and honey, which, with the upper corners of the other seven frames, is ample. To give more room than that, is to have honey stored below, that should go above.

Mr. Pond has, himself, somewhere in the AMERICAN BEE JOURNAL, argued that to get bees into sections, the brood-frames should be close enough together to keep the combs only about ⅛ of an inch in thickness, without cappings, so that they would be filled with brood quite up to the top-bars. I think that I am safe in saying that bees will never fill the combs of a ten-frame hive up to the top-bar. If there is room to spread the brood horizontally, they will fill the upper part of the frame with honey.

I have used eight and ten frame hives, side by side in my apiary for five years, and I would exchange all I have of the latter kind for the former, and pay 25 per cent. "to boot," quickly. They can be contracted and expanded at will, that is true; I am doing that all the time, and I know how it goes. I seldom can use a brood-chamber of a ten-frame hive to its full capacity. I generally have two dummies below; then when I put on surplus arrangements I must have division-boards, or boards to cover a part of the surface of the lower story, as the case may be.

I have had in the two stories, six dummies, with a lot of moth-cocoons wedged in the crevices, and a mouse-nest in the bargain. Dummies, honey-boards, supers, covers, chaff-cushions, *dummies*—over and over, again and again. I am sick and tired of so much lumber. Dummies! Why I have stacks of them, poking them here, tossing them yonder, "toting" them in and "toting" them out. With the hive I have, I could not do without them, perhaps never altogether; but with a hive of the right size—11½ inches wide—the need of them would be reduced more than one-half.

Mr. Pond highly commends this thought of Mr. Tefft, viz: "Keep the bees in one strong colony until after the honey harvest," etc. So do I! It is like many another good thing that we cannot have. I read Mr. Tefft's article about three times. It is a wonderful article. The remark quoted is a sample of much more contained therein. His ideal is a wonderful ideal indeed. I cannot even dream of such an one. Allow me to speak a parable:

A youth dreams: "If I could have all the money I want, a fine, beautiful estate, the prettiest, smartest, sweetest girl in the world for a wife, no pains, no sickness, no cares, no discontents, no work—everything that heart can wish, and nothing to do but enjoy my lovely wife, and eat ice-cream and cake, and never have dyspepsia—oh, how happy I would be." So would I! Mr. Tefft so mixes the actual points of his hive and system with the ideal, that we cannot quite separate the one class from the other; but that he does not possess all his ideal, is pretty evident. If he or any other man can ever "keep the bees in one strong colony until after the honey harvest," and yet "keep the brood-frames full of brood, and no honey in them during the harvest," (especially with Mr. Pond's ten-frame hive) as he says in the same sentence; have reversible frames, brood-chamber, cover, dummies, chaff-hive, and no chaff-hive, and yet have it simple; have a double bottom with tarred paper between the boards—and everything else that he mentions and wants, and yet have it cheap—I hope he will tell me. All these are veritable points of his ideal hive.

"High as the heavens" his "name I'll shout,"
If he'll give me all the good, and leave the bad out.

Seriously, does not every bee-keeper know that to keep honey out of the brood-chamber, *it must be crowded out*? It cannot be done altogether even by contraction, although that will go a long way toward it. If the lower story is large, much of it will be filled with honey and sealed. In any case, when honey is flowing in, an old bee comes in laden with honey, spies a cell from which a newly-hatched bee has lately emerged, disgorges its load, and returns in haste to the cups of nectar it has left behind. To be sure, this may be carried up by the younger bees, but the process keeps cells all through the hive pre-occupied a great deal of the time. That is bee-nature, and no hive or system can change it.

Moreover, just at this juncture—the early part of heavy honey-flow—the hive is fullest of bees, and bees throng the brood-chamber in spite of supers above. Indeed, to get bees above, they have to be crowded—pushed—fairly propelled, like water in a fountain-pump. Think of that, my bee-keeper friends! Consider that well.

Talk, plan, work as we will, the lower story will become crowded, and swarming is the result. The man who works chiefly for extracted honey, may so manipulate as to keep the bees in one strong colony until the harvest is over; but he who produces principally comb honey, never can—unless, indeed, the dreamy future should have such a corresponding reality as a non-swarming bee.

Mechanicsburg, Ills.

MINNESOTA.

A Lady's Experience Among the Bees.

Written for the American Bee Journal
BY MISS IDA HOUSE.

I have been a silent reader of the AMERICAN BEE JOURNAL for a number of years, but I have seen very little from bee-keepers of this State, and I often wonder why they stand back, and let the bee-keepers from other States do all the talking. So now I am going to set them an example, by telling them what our bees are doing.

I have helped my brother-in-law, Wm. Lossing, care for his bees for nearly six years. He has often asked me to write something for publication, and as I have just finished reading the

BEE JOURNAL, and found no letters from this State, I have concluded to write; and if it is found worthy of publication, I will write again.

My brother-in-law, on page 297, told of his removal from the southern part of the State, to Howard Lake, Minn.; since then we have sold nearly 60 colonies, which leaves us 135, 90 of which are pure Italians. We are equalizing them now, that is, taking frames of sealed brood from the strong ones, and giving to the weak ones. This, I think, will make them all ready for basswood, which will bloom in about three weeks.

Since white clover began to bloom, the bees have stored honey in supers and sections, and if the weather continues pleasant, we will have to begin extracting soon. White clover is very abundant here, and we never had a better prospect for basswood honey than we have had this year.

We are talking of starting a bee-keepers' convention here. I am always glad to read letters from my sister bee-keepers, and I wish there were more of them. I think that bee-keeping is one of the most pleasant occupations that a lady can engage in.

I hope that the golden-rod will be adopted as our "National Flower," as it has always been my favorite.

Howard Lake, Minn., June 22, 1889.

HINTS.

Honey, Extractors, Buying Bees, and Humbugs.

Written for the Massachusetts Plowman

BY GEO. A. STOCKWELL.

There is honey in the market labeled "Honey thrown from the comb by machinery." Every word after "Honey" is superfluous. The honey must be thrown from the comb because it is not found in anything else, and it must be thrown by machinery because there is no other way to throw it. The label on all honey should read, "Honey," simply, not "Pure Honey," nor "Strictly Pure Honey;" if it be honey, it is pure honey, otherwise it is not honey.

Extractors.

Speaking of extracted honey leads to extractors. It is one of the mysteries of the bee-world why a Western manufacturer makes ten or a dozen extractors, varying in size, when one would answer the purpose. The result of placing so many extractors in the market is to confuse the buyer. One man ordering three times by number has not yet been able to get the extractor he wants. The attempt has been made by the manufacturer, apparently, to produce an extractor for every size of frame. Why would not one extractor, the largest, be enough? It would admit all the small frames. This much making of extractors recalls the farmer who cut two holes in his barn—a large one for the old cat, and a small one for the kitten.

Buying Bees.

The best way to begin bee-keeping is to begin by practice and not by theory. You may learn from books, but you must get knowledge by actual contact with the bees. To begin, there must be bees, and how shall bees be bought? A dealer in bees said, "I will sell a colony of bees for three dollars, or a colony for twelve dollars."

In many cases the novice will decide in favor of the three-dollar colony. What is the difference in these colonies? Let us open the twelve-dollar colony. As soon as the covering is removed, bees, bees by the thousand come pouring out. Really the kettle boils over, and so many bees come out that you wonder how they will all get back. And they are demonstrative, too. They are plucky and determined, for they know that they are strong, and they as much as say, "Look out! We are fifty thousand strong, and will not be trifled with."

Now we open the three-dollar hive, A few bold ones come slowly to the top, but the most of them hug the combs, and huddle closer together for they are weak and know it. There is only a small cluster in the centre. As far as immediate results go, the colony is worthless. They have a queen, but there are so few bees that they make no progress in early spring. They will no more than build themselves up in one season. A student might use them in preparing for the next season, but it were better to study a live, kicking, rebellious colony. In any case it were better to buy the twelve-dollar colony.

Lizzie's Periodic Humbug.

The tricks of a New England bee-keeper have been exposed repeatedly in bee-papers and agricultural papers, but the advertisements of this bee-keeper still appear to the beguilement of the unwary, and to their ultimate confusion and discouragement.

The plan of this bee-keeper is to feed an inferior syrup to the bees, and then sell the product as honey. This is fraudulent, and whoever practices it, practices dishonesty. By this plan the bees gather no honey.

Does molasses, sugar or corn-syrup become honey by the bees' manipulation? No. They may be changed slightly, but cannot be honey. A bee-keeper in a New England State produced this kind of "honey" for years, feeding barrels of sugar, or sugar and water, or glucose. The fact was admitted by the bee-keeper himself. Daily the feeders were filled, and the bees kept at home, at work in their own domicile.

This bee-keeper produced in one year 6,000 pounds of honey, or what was called honey. As he kept a large co-operation store, he could sell, or "trade" this sugar and water. That happened several years ago, and it is said that a large quantity of this product is now packed in grocery cellars, a dead commodity. Some talk was made about it, the people found it out, and would not buy. And yet the appearance of this product of feeding was more attractive to the casual buyer than honey.

The bee-keeper referred to in the beginning attempts to popularize apiculture on the basis of feeding a syrup costing two or three cents a pound, and selling as honey at 25 cents a pound—attempts to lead bee-keepers into cheating the people. But the people are not long deceived. They soon learn the difference between honey, and sugar and water.

Providence, R. I.

PAINTED BEES

Used When Hunting Bee-Trees —Working on Clovers.

Written for the American Bee Journal

BY JAS. F. WOOD.

On page 371 of the BEE JOURNAL appears an editorial, headed "A Painted Bee." As I read it, I was reminded of the days when a barefoot boy, I hunted bees in trees all around the neighboring towns, and used vermillion paint to mark the bees, and then they were "timed," to see how long they were gone to the tree. Now this paint was just touched on a bee's back, and it remained there a bright red, as long as the bee lived.

I remember of once marking three bees, and in two weeks, when the tree was cut, and I hived the bees, I saw two of these painted bees. The paint was used in a dry powder, as fine or finer than flour, so you see the bee could fly just as well after being painted.

It might be of interest to some, to know that more depends upon the condition of the atmosphere, as to how long it takes a bee to go and return a certain distance, than the actual distance. For instance, I have known a bee to go 1¼ miles and return, in eight minutes, in a warm day, when the wind did not blow, and in a damp,

windy day it took the same bee fifteen minutes to return.

Red and Alsike Clovers.

There is plenty of clover bloom here this season, but my 40 full colonies have not a pound of honey to the hive. It is so wet and rainy that bees get very little time to work. I have about one-third of an acre of Alsike clover, and I notice that this is visited by the bees much more than is the white clover. Some seasons my Italian bees work on red clover, but this season it is not visited by them. I once saw a field of red clover covered with Italians, and all underneath was a perfect mat of red clover, and this was covered with black bees, and hardly any Italians; while the red clover was not visited by a single black bee. The conclusion that I came to was, that the Italians could reach a little deeper for honey than the blacks, and that the red clover sometimes secretes more honey than others, and then the bees can reach it. Perhaps the petals are shorter in some seasons than others, and this may account, in part, for Italians working on red clover in some seasons, and not visiting it in other seasons.

North Prescott, Mass.

IMPARTIALITY.

Large vs. Small Brood-Chambers Again Considered.

Written for the American Bee Journal

BY W. Z. HUTCHINSON.

The old question of "Large *vs.* Small Hives" seems to be fading in the distance, while that of "impartiality"—has the *Review* editor been impartial?—is bobbing up serenely.

It is an easy matter to go through a book or a magazine, and by making selections give a wrong impression. Mr. Dadant fails to say that the *Review* has contained a few articles favoring large hives. In his revision of "The Honey Bee," he quotes from French authors in favor of large hives. Why not have given a few quotations in favor of small hives? Instead of so doing, he says:

> We take this opportunity of again *energetically* asserting that our preference for large hives is based on a successful practice of more than twenty years, with several hundred colonies in different sized hives, while our opponents could bring forward nothing but their preconceived ideas.

My ideas in regard to the size of hives are not wholly theoretical. I have kept bees for twelve years, and used hives ranging in size from a two-frame American to one holding 33 American frames. Mr. Heddon has used many different sizes of hives: among others he had 30 "long idea" hives, that held 30 frames each, and he used them two years before throwing them away. Mr. Doolittle is well-nigh universally looked up to as a leader, and always "gets there" in the production of honey, and he has for years been pleading for a small brood-chamber.

Adam Grimm has been quoted as "the man who made a fortune out of bees," until a mere mention of the matter leaves a "chestnutty" flavor upon the palate. He used an 8-frame Langstroth hive.

But why multiply examples? And yet, in the face of all this, my opponent asserts that those who argue in favor of small hives can bring forward "nothing but their preconceived ideas."

Even if large hives were my "nightmare," as Mr. Dadant asserts, I fail to see what bearing my preference for the Heddon hive has upon the subject; because, as explained in my last article in the AMERICAN BEE JOURNAL, the Heddon hive is *endlessly large.* No one can be rightfully accused of mercenary motives in advocating either a large or a small hive, as any one is perfectly free to make any size of hive.

Mr. Dadant asks "why I did not quote Mr. Jones, who, after buying the patent (to the Heddon hive) for Canada, abandoned it?" One reason is, that nothing of the kind has appeared for me to quote; and I am at a loss to know why my opponent should ask such a question.

In his first article, Mr. Dadant asserts that a large colony requires no more labor than a small one, and I asked him if he could extract the honey from a large colony as soon as from a small one. This he evades by telling with how few days' work he and Mr. Stachelhausen have produced large crops of honey—all of which no one doubts; but the question is: Can you extract the honey from a large hive as soon as from a small one?

Mr. Dadant says that I have condemned oil-cloths, as I have large hives, without testing them. Large hives I *have* used, quilts I have not, to any great extent, and I said so; that seeing other people use them had satisfied me; and from this, and from correspondence, and from *reasoning* upon the subject, I honestly believed that the quilts would yet be discarded, and said so, and see nothing in such actions that calls for condemnation. In hives with raised covers or "caps," I presume that quilts are a necessity, but this style of hive is being superseded, and with it will go the quilts.

All through Mr. Dadant's article runs a thread of opposition to my "love for the Heddon hive." That the Heddon hive is my preference, I do not dispute. I used and advocated it before I began the publication of the *Review;* and when I became an editor, the question arose: "Shall I now become a 'bump on a log,' or shall I have ideas?" I decided to have ideas, and to express them. If I preferred the Heddon hive, I should say so, giving my reasons; if I thought that the Bingham smoker and honey-knife were superior, there would be no hesitancy in allowing that fact to become known; the same would be true in regard to the Given foundation, four-piece poplar sections, etc., clear down through the category. I would always hold myself in readiness to give reasons for my preferences, or acknowledge my errors; at the same time allowing others the privileges claimed for myself; and when I cannot run the *Review* upon this plan, I shall simply write its obituary, and turn my energies once more to the production of honey.

It is true that I have declined many articles (what editor has not?), some of them from the best writers, and I must continue to do so, unpleasant though it be; but I have never been actuated by motives of partiality, and have never declined one simply because it "advocated large hives."

Flint, Mich.

NEBRASKA.

The Season and Bee-Keeping in Nebraska.

Written for the American Bee Journal

BY CHESTER A. MOTT.

Bees have been a little backward here this spring, on account of cool nights, which we are apt to have through May and the forepart of June. The bees are getting out in the morning now—I do not know how early, but I believe that they go to work before they get their breakfast, or else they get it pretty early, for they are at work before I am out of bed, and all good bee-keepers get out in the morning—if they do not, I think that they should.

Nebraska has not been a very good State for a large crop of honey in the past, although what honey there is, is very nice; but I believe that in the near future, it will be a very good State for honey. White clover is spreading fast, and it grows well; the yards and roadsides, and some of the fields will soon be white with clover; also heart's-ease, smart-weed and milk-weed are plentiful. The propects are good for a big crop.

Bees are swarming in full blast, and the increase will be good. There are about 400 or 500 colonies in this (Lancaster) county.

There are a few box-hives in the county yet, but most of their owner's become tired of them, when they see their neighbors getting more of increase of bees, better yields of honey, and the honey in finer shape, and they bid farewell to the old box, and present their bees with a handy house.

I would like to have this question answered: Is it a good plan to put old black comb into a hive for the bees to breed in?

Emerald, Nebr., June 18, 1889.

[The color amounts to nothing, and unless the cells are much smaller by reason of repeated cocoons being left therein, they are just as good, practically, though we should prefer to renew them when convenient.—ED.]

WATER IN HONEY.

Evaporating Water from Honey in the Cells.

Written for the American Bee Journal
BY HENRY PATTERSON.

Query 636, on page 374, brings out a chorus of "yes." Now before I make my decision, I wish to draw a shadow of the other side. We know well that water will evaporate from honey if kept warm in a dry atmosphere, which can be said of most liquids; and as Mr. Heddon says, it "may absorb water" in damp air; but does this answer the Query? The direct point is, does the water escape from the honey in the individual cell, before sealing?

The thought of wax-secreting creeps in here, which is an unsolved question, as to the direct cause for it. Now if Mrs. Harrison will promise to hold her criticism, I will drop in a thought on a new theory (at least it is new with me).

First, do bees build comb faster from thin honey, than from ripened honey? We notice that bees build thicker comb at times, caused from an over supply of wax, which is readily seen by their bridging and daubing everything inside of the hive. Is this caused from an over estimate on the part of the bees—hardly, I think.

Again, we notice that the first honey that comes in, is always placed low down in the combs; if it is to be evaporated by generated heat, why has not Nature placed it above? Now, will some one say, for convenience for dishing out to the young bee? Prof. Cook tells us on page 375 of the last issue, that it must be digested before the young can receive it.

If we look at the process of securing gum from trees, we find that it is done by breaking cells, and allowing the sap to flow to the surface, allowing the air to take up the water, and leaving the crude gum. This we can see on our peach and cherry trees, caused by insects. Now is it not possible that the secretion of wax is similar? When bees gather nectar, is it not possible for the evaporation to be done by the bees filling their honey-sacs, and clustering so that perspiration will begin, and the heat that the bees generate is for evaporating the water from the wax on the bee, and not for the honey in the cells?

Has any one ever seen bees gather nectar, but what in a very few days they were secreting wax? This will occur in a hive full of comb, as bees have no use for wax only for capping; and in this case, if I am correct, you will find the frames and bottom-board glazed with a substance similar to wax, which, I think, is wax unprepared for comb-building, which is removed with the water as fast as it comes to the surface; and, also, is this not the glue that bees leave on glass, when confined in a room?

If this theory seems plausible, will some one, who is situated so that he can experiment, test it by feeding well-ripened honey, with the bees excluded from water? for if wax is caused by perspiration, force of nature would cause the bees to use water in the absence of it in the ripened honey.

Humboldt, Nebr.

SWARMING.

Bees Selecting a Home Before Swarming, etc.

Written for the American Bee Journal
BY FRANK COVERDALE.

"Do bees select their home before swarming?" is a question that is of at least some importance to the whole bee-keeping fraternity. The loss of a great many swarms is vested here. I do not know whether all swarms send out spies or not, but even inasmuch as one swarm does, we will take it for granted that all that swarm under a normal condition will do the same, though, in my opinion, they do not all succeed before swarming.

For five successive years I placed in a certain oak-tree, a box or nail-keg, and every year except one there came a swarm into these kegs and boxes. As I was plowing corn or making hay each season near this tree, I could see quite easily just about what was going on during nearly all the swarming season. At first I would see perhaps one bee, after that the number would increase, and one not posted would be very apt to think that there was a swarm in the keg. They would usually protect and clean this keg from one to three days before they would take full possession; at other times they would come in great numbers, and in due season disappear, in which case they had been captured, or found more suitable quarters.

Place a keg in each of two trees 40 rods apart, and the same swarm will hunt through both of them, and make their choice. I do not think that there were any chemical changes taking place in these kegs, as Mr. Demaree mentions on page 456 of the BEE JOURNAL for 1888. Nature does not intend to send the busy bee wandering from place to place, just happening to come across a hollow tree or log. Let any who doubt this, do as I have done, and they will be sooner or later convinced.

Swarms that have chosen a new home close by, are very apt, when swarming, to rise high up in the air, and go quickly, never stopping to cluster, as they have a string or trail of bees all the way from the hive, or swarm, to the new home—the less the distance, the more bees on the trail, or the thicker they fly; thus the further away, the better are the chances for them to cluster, for these bees flying back and forth have quite an influence on the swarm. It was such cases as these that so strangely induced me to adopt the method of clipping all of my queens' wings; for there is no one thing pertaining to bee-keeping that puts me more out of patience than to have a portion of my swarms leave me; for in so doing, there goes the profit.

Alsike Clover in Bloom.

I have at present about 20 acres of Alsike clover in full bloom. It grows with red clover, in the proportion of about ¼ Alsike and ¾ red. It promises well for hay, as it grows finely, and just as tall as the red. It grows many sprouts from one root, and looks as if the hay would be superior to the red. The bees take well to it. I sowed Alsike in with all my 40 acres of seeding this spring, that is growing finely.

Welton, Iowa, June 13, 1889.

☞ The Northern Illinois Bee-Keepers' Association will hold its next meeting on Aug. 20, 1889, at R. Marsh's, in Guilford Township, 4 miles northeast of Rockford, Ills. D. A. FULLER, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec. Brantford, Ont., Canada.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Aug. 20.—Northern Illinois, at Guilford, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

Aug. 31.—Haldimand, at Fisherville, Ont.
K. C. Campbell, Sec., Cayuga, Ont.

Sept. —.—Maine, at Livermore Falls, Me.
J. F. Fuller, Sec., Oxford, Me.

Sept. 5.—Erie County, at Buffalo, N. Y.
O. L. Hershiser, Cor. Sec., Big Tree Corner, N. Y.

Dec. 4, 6.—International, at Brantford, Ont., Canada.
R. F. Holtermaon, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Busy Gathering Honey.—R. L. Tucker, Lexington, Mo., on June 24, 1889, writes:

We are in the midst of a busy honey season at last. Swarming is about over, and clover is still in bloom, with linden also, and when the weather is warm and nice, the bees store rapidly. I have taken 1,700 pounds of extracted honey—all clover—from 30 colonies. I am running 90 old colonies, with their increase, for comb honey, and expect quite a nice crop, as they already have over 3,000 sections about ready to take off. I will give a complete report a little later on.

Bees are Booming.—O. B. Barrows, Marshalltown, Iowa, on June 21, 1889, says:

To-day it is cool, and yesterday it rained all day, but before that the bees were booming—swarming and gathering white clover honey. Many colonies have the second tier of sections on, with basswood, buckwheat, goldenrod, Spanish-needle, and all the "back counties" to hear from. Who says the prospect is not good for a honey crop this year?

Good Weather Needed.—Vet Tucker, Shelby, O., on June 24, 1889, writes:

I packed 55 colonies on the summer stands last fall, and they were all in fair condition this spring, except that three were queenless. They built up rapidly until about May 10, when a cold, wet spell set in, which has continued to the present. To-day it is cold, with a north wind, so that the bees can work only a few hours in the middle of the day. During this cold, wet weather, they consumed all their stores, and had to be fed, and as I expected that each succeeding day would bring fair weather, when they could gather stores, I fed only sufficient to carry them a day or two, and of course brood-rearing nearly ceased. In this locality there was an abundant raspberry bloom, and now acres and acres are covered with Alsike and white clover blossoms, furnishing plenty of honey, if the weather were suitable. I have had no swarms yet, and do not expect any soon, though the hives are full of brood. The basswood promises a very heavy bloom, and I hope that I may yet get some honey. My bees are a sample of the bees in this section. They generally wintered well, did well during April and the first of May; many starved in May and the first part of June, but they are getting some stores now. Very few swarms issued, and bee-keepers are generally discouraged.

Bees Doing Well.—S. Burton, Eureka, Ills., on June 24, 1889, says:

Bees are doing well both in swarming and storing honey. I shall have to begin taking off honey next week, I think, if they continue to do as well. I think that they will do better now, as white clover is in abundance here. I have had 22 swarms, and lost one that absconded; it was a second swarm, and a small one at that.

New Honey. — Mr. S. D. Haskin, Waterville, Minn., on June 24, says:

I have just taken off several cases of sections of honey pretty well filled and capped. I have often remarked that Minnesota was not blessed with honey-dew, but this year, so far, it is not snow-flake or golden-rod honey. Bees are swarming cautiously. It is oh, so dry; and yet my bees have done well.

Peculiar Season for Bees.—Geo. Gale, Adams, Nebr., on June 22, 1889, says:

The season, so far as it relates to bee-keeping, has been a very peculiar one here, yet in the main it has been favorable to increase, but bees have stored no surplus, as yet. Crops of all kinds are looking as well as ever I have seen them. Late frosts have not damaged anything except some of the small fruits, and that only to a slight extent. Bloom has been pretty plentiful most of the time, but we have had a good deal of cool and windy weather, so that the bees could not work. I look for a good season yet. The hives are overflowing with bees, but I have had only one swarm from 15 colonies, so far.

Disposing of the Honey-Dew.—P. M. Richardson, Magnolia, Iowa, on June 22, 1889, writes:

Bees came out in good condition in the spring. At present the outlook for a good surplus yield is favorable. Last year, when basswood blossomed, my hives did not average one pound of honey in the brood-chamber; now the hives are full, with some honey-dew in the sections. When honey comes in more freely, to prevent the bees from gathering honey-dew, I will take it off. One of my neighbors has a lot of it sealed in sections—what shall we do with the stuff? Will it do to keep it and feed it to the bees next spring? In 1888 I took off more than 100 pounds of comb honey per colony, spring count. I hope to do as well this year.

[Yes; it can be used for spring feeding, when the bees can fly occasionally.—ED.]

Reversing and Uncapping.—Mrs. Ada Dorsey, Holliday, Mo., on June 25, 1889, says:

My bees are doing real well, but I have lost several young queens. Please tell me how old a queen has to be to lay worker eggs. Whoever that was that advised reversing a hive and uncapping the honey, ought to have a shaking; for I have just tried it, and lost lots of honey and several colonies. No more uncapping for me! I have had one prime swarm that weighed 12 pounds. How is that for size?

[Queens usually begin to lay when 8 or 10 days old.—ED.]

The Season in Nebraska—The Union.—James Jardine, Ashland, Nebr., on June 24, 1889, writes:

I put 81 colonies into the cellar on Nov. 20, 1888, and took them out on March 25, 1889. I had 80 colonies in good condition. I kept the cellar temperature as near 42° to 45° as I could. I tried some 20 colonies with a piece of gunny-sack over the brood-frames, and they did finely. I will prepare the most of them that way next winter. I never had so many queens die as early this spring; so I had to give them brood to rear queens. I had lots of drones in some strong colonies to mate with, so I did very well. I never have seen so much honey-dew in May and June as there has been this year. It kept the bees with plenty of food for the young brood. They have been swarming since the middle of May. I am looking for lots of swarms in July, this year. The bees are working on

the sweet clover, mustard, and the sumac at present, and the basswood will be ready about July 1. It looks fine this year, and it appears at present that I will get more honey than I have had in two years. We have had fine rains lately, and everything looks nice. I have two of the Heddon hives to try this summer.

I was happy to see that Mr. Rich, of New York, came out all right in his bee-lawsuit, and his neighbor got the sum of six cents! It seems so strange, to me, that we cannot have more bee-keepers to join the Union. No man can tell when he will get into trouble with such fellows that know no better. I have been told a number of times, that if I was inside the city limits, they would make me move my bees out, as the bees troubled the grocery stores so much; but this year they have not been troubled with the bees, and now they feel slighted. I tell them that I have been getting an honest race of bees, that do not believe in stealing.

Too Cold and Too Wet.—John R. Sample, Elizaville, Ills., writes:

Bees in this neighborhood are not doing any good. In the spring it was too dry and cold for them to get honey enough to breed on; then it commenced raining on May 25, and has rained nearly every day since.

Unfavorable Weather, etc.—John Dewar, Tiverton, Ont., on June 15, 1889, says:

Bees generally came out in good condition this spring. The latter part of April, and up to about May 20, was very favorable for the bees, with no spring dwindling, at least with my bees; but since May 20, the weather has been very cold and wet, so that the bees could not leave their hives. It is now warmer, but still wet. If we should get favorable weather after this, we expect a good yield, as the colonies are very strong.

Selecting a Future Home.—W. C. Steddom, Oregonia, O., on June 24, 1889, writes:

As there has been a great deal written about bees selecting a future home, I wish to add the result of my observations. Some three weeks since, I was expecting a swarm; in my apiary, consisting of about 50 colonies, was an empty hive, and on the opposite side from the hive containing the colony which I thought about ready to cast a swarm. Bees had been at work cleaning up and guarding the empty hive for several days—I think that some of them stayed during the night; by watching them after sundown, when other bees had ceased to fly, I could easily follow them as they would go home, and they went directly to where I expected the swarm. In a few days, out came the swarm, and streamed across the apiary to the empty hive, and were pouring into it before more than one-half were out of the parent hive. What more do we want, to prove that bees do select the future home?

Queens Too Old to Lay, etc.—Wm. Anderson, Sherman, Mo., on June 17, 1889, writes:

I have not seen a better season for honey than this, though it is very backward and late. The rains and cool weather has put the bees back in this part of the country. I have been very much discouraged on account of so much failure in honey and bees, but I see before me a bountiful harvest of honey, though having lost very nearly all my bees with foul brood and starvation. 1. What is the cause of a queen's stopping laying for the space of three weeks? 2. How old is a queen when she is too old to lay, if she is ever too old to lay?

[1. In cases of scarcity of food, queens sometimes stop laying, or the bees will not allow the eggs to hatch until favorable conditions exist.

2. A queen should lay for three years or more, all other things being favorable; but sometimes she becomes sterile from other causes than age.—ED.]

Bees Eating Brood, etc.—Rev. Stephen Roese, Maiden Rock, Wis., on June 10, 1889, writes:

Up to yesterday, bees in this section of the country were almost in a starving condition, owing to the heavy frosts and cold weather; but since the rain, a few days ago, white clover blossoms have opened, and the bees find something to do. On a careful examination, I found, in spite of my feeding, that all colonies were much lighter than in the early spring, and some were even in a starving condition. One colony I found dead, having had a vigorous young queen, and breeding rather ahead of her stores; six frames were full of sealed and unsealed brood; the latter, it seemed that the dying colony, after all the honey was gone, subsisted upon, judging from the unsealed brood mostly consumed. Has anything like this been known before? Upon further examination, I found that many colonies had made prepartions for early swarming, but in consequence of the cold weather and destructive frosts, they had torn the queen-cells down, and were killing their drones.

P. S.—At this date (June 16) the weather is quite warm, and bees are very busy gathering nectar from white clover and raspberry. The good-nature and cheerful hum of the honey-gatherers is an indication that the hard-times and honey-dearth are over for the present, and the apiarist is looking forward with a good hope that he will be well rewarded for his labor and toil. Many hundred acres of buckwheat are sowed in this immediate neighborhood, and about one-fourth of it is the Japanese variety. I am putting on sections, but I have had no swarms as yet, and do not look for any for eight or ten days yet, as I have built up the weaker colonies by taking brood from the stronger ones.

Starting Again with Bees.—H. G. Heckman, Clark, Dak., on June 19, 1889, says:

I am again trying to begin the bee and honey business, as I have purchased several colonies, and I believe that I can make it a success here in Dakota, but I am more than five years behind the times. I have 2 colonies of pure Italian bees—perhaps the only ones in this (Clark) county. I am living on the edge of a thriving village, engaged in farming, and I am well satisfied with this country. I have seeded two acres to buckwheat, and we have wild mustard and golden-rod, and some other honey-plants.

Chloroform and Swarming.—L. B. Graves, Nineveh, Ind., on June 22, 1889, writes:

On page 823, of the AMERICAN BEE JOURNAL for 1888, Mr. W. H. Kirby, speaks about chloroform for the prevention of swarming. I would like to know just how he uses it, and just how much. I tried it on two colonies, but it had no effect. I used a cold-blast smoker, and put a small piece of cotton in the muzzle, poured chloroform in on it, and puffed it in at the hive-entrance, but I could not even stupefy the guards. If there is a better way to use it, I would be glad to know it. The season has been very backward here—very cold and rainy, until the last few days it has been very warm, and now the bees do nothing but swarm. I gave them more room both in the brood and the surplus departments, but they would not occupy it—only hang around the entrance for a day or two, and then swarm.

White Clover and Basswood.—J. W. Collins, Clarksville, Mo., on June 4, 1889, writes:

I began the season with 40 colonies, and have increased them to 68. I have sold a few pounds of white clover honey at 13 cents per pound. I think that the price is low and so I will hold my honey for better prices. The outlook here is fine. White clover has been in full bloom for two or three weeks, and the highways, byways and hedges are just white with clover, also the pastures and fields. Basswood will be in bloom in about ten days, and with the abundance of it together with clover, we bee-keepers are, or ought to be, happy.

Very Good Honey-Yield.—D. R. Fox. M. D., Jesuit's Bend, La., on June 18, 1889, writes:

The honey-yield of this portion of the parish has been very good this year, owing to the low stage of the Mississippi river. There has been scarcely any rice planted, consequently the white clover and wild flowers have been quite abundant. I extracted from about 90 colonies of bees, 275 gallons of orange-flower and white clover honey, during the month of April; and my hives are full again, mostly of white clover honey. I will get 280 or 300 gallons of honey during this month.

Large Crop Expected. — The "Moriah Center Mill-Company," of Moriah Center, N.Y., on June 20, write:

It has been very wet for the last week, but the bees are doing well now—they are swarming and storing honey in the sections. There are not a great many bees in this vicinity. Three-fourths of all the bees in this locality were lost one year ago this spring. The prospects are good for a large honey crop, if the weather is favorable.

Ripening Honey by Solar Heat.—Fayette Lee, Cokato, Minn., on June 20, 1889, writes:

Last summer I extracted some very thin honey, and put it into glass jars, which I then put in the sunshine; in three days the honey was thick and very nice, and the flavor was good. The jars must be so that the air can get in. The heat of the sun was from 95 to 110°. I believe that every bee-keeper could make a tank about 4 inches deep, as large as desired, and cover it with glass, to ripen the honey that way, and keep the bees strong. Try it and see.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

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Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

Honey and Beeswax Market.

CHICAGO.

HONEY.—The old crop is about exhausted, and not any new has been offered, especially is the foregoing applicable to the state of the comb honey market. Extracted, very little demand, at 7@8c.
BEESWAX.—25c. R. A. BURNETT,
June 10. 161 South Water St.

DETROIT.

HONEY.—No attractive honey in the market, and sales are slow at 12@15c.
BEESWAX.—24@25c.
June 22. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—Very nice new comb in 1-lb. sections is selling at 18c. Very little old honey of any kind is on the market, and no new extracted.
BEESWAX.—None in the market.
June 26. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Extracted, in barrels, 6¼@6¾. Excellent demand for clear, bright in barrels. Dark, 5¾@6c.
BEESWAX.—Scarce at 23c. for prime.
May 22. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—Extracted in good demand. We quote: Fine orange-bloom at from 7@7½c.; off grades of Southern, 6@7c. per gallon.
BEESWAX.—Scarce, at 26½@27½c. for good.
HILDRETH BROS. & SEGELKEN,
June 6. 28 & 30 W. Broadway, near Duane St.

BOSTON

HONEY.—We quote: 1-pounds selling from 16@18c.; 2-lbs., 15@16c. Extracted, 8@9c. Sales very slow.
BEESWAX.—None on hand.
June 22. BLAKE & RIPLEY, 57 Chatham Street.

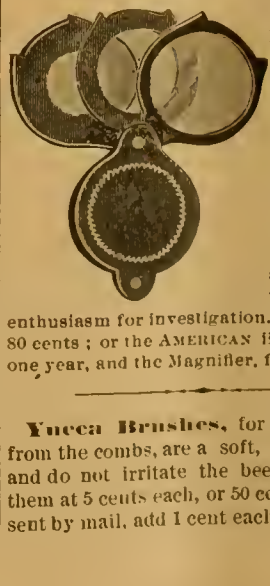
CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb., Demand slow for table use, and fair from manufacturers. Several lots of new comb have arrived, but quality being off, it finds slow sale at 12@14c.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
June 22 C. F. MUTH & SON, Freeman & Central Av.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2 00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.



Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows :

For 50 colonies (120 pages).....	$1 00
" 100 colonies (220 pages).....	1 25
" 200 colonies (420 pages)	1 50

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble.

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Tested Italian Queens, $1 each. Untested, 75 cts , or 3 for $2.—By Return Mail.
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Mention the American Bee Journal.

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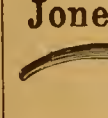

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. July 13, 1889. No. 28.

EDITORIAL BUZZINGS.

The National Flower, what shall it be?
Of all the flowers where men have trod
In mountain home, or near the sea—
Give me the stately golden-rod.
—JUSTUS CHAPMAN.
Woodville, Mich., June 30, 1889.

Father Langstroth is still in poor health, and is yet this side of the borderland. Those who subscribed to his annuity last year, will please not forget to send him the amount for this year. He is needy, we know, and will appreciate it to its full extent.

The National Flower.—Since our article on this subject appeared, several papers have notieed our advocacy of the claims of the "Golden-rod" for the National flower. The New York *Tribune* for June 26, notices it thus:

Mr. Thomas G. Newman thinks that bee-keepers should vote for golden-rod as "the National flower."

We expected that the *Tribune* would either approve of the golden-rod or advocate some other flower—but it leaves that for others.

The *Tribune* sums up an interesting article from the AMERICAN BEE JOURNAL into a paragraph, and adds:

Marvellous, indeed, from every point of view, are these useful little insects, and if the foregoing data—condensed from a current column article—incite any young reader of the *Tribune* to desire further knowledge of their wonderful ways and mechanism, we commend to him or her the reading of Prof. Cook's admirable book; and in the way of periodical publications, Mr. Root's standard fortnightly *Gleanings*, and Thomas G. Newman & Son's old and always perennially-inviting weekly, the AMERICAN BEE JOURNAL.

A Grand Precedent is established by the decision of the Supreme Court of Arkansas, that "bee keeping is not *per se* a nuisance!" Bro. A. I. Root, in *Gleanings* for July, makes these comments on it, and the defense carried on by the Union:

The aid of the Bee-Keepers' Union was at once solicited, and the case was tried in Circuit Court, where it was decided that "the city ordinance was illegal and void;" that "keeping bees is not a nuisance." The case was carried to the Supreme Court, and Brother Newman just announces that the Union has, after an immense amount of worry and expense, again *won* the suit, and that a *grand precedent* has been established.

In no single instance has the Union been defeated; and it begins to seem now that, in view of its past victories, to enlist its aid means success every time.

It would be a terribly bad thing to have bees declared a nuisance by a Supreme Court, and perhaps there are but few bee-keepers who realize what the decision in the case of Mr. Z. A. Clark means.

Mr. Newman, the Manager of the Bee-Keepers' Union, informs us that $1,000 will be needed to proseeute the cases now on hand. Remember, you eannot expect assistance trom the Union unless you are a member. The fees are $1.00 per annum.

Perhaps we should say here, that we are not in favor of trades-unions in general; but the Bee-Keepers' Union, under its present able management, we are sure has been productive of good. After we have a few more precedents established like the Arkadelphia case, outside parties will be slow to declare bees a nuisance.

We are just as much opposed to "trades-unions in general," as Bro. Root—the National Bee-Keepers' Union is quite another thing, however! It simply sets up a *defense* when its members are unjustly attacked! It will not defend even a member, unless his cause is *just;* and attaeks growing out of ignorance, jealousy, prejudice, and the like, which threaten the pursuit in general, should of necessity be *repulsed vigorously!*

The "Union" orders no strikes, and makes no attacks—it simply *defends* the pursuit of bee-keeping, and fights in a *moral* and *legal* way, for *right, justice and truth!*

We publish a eondensed history of the case in this issue of the BEE JOURNAL, so that all may get a proper understanding of it, and the points ruled upon by the Supreme Court. We shall also print it and the arguments and decisions of the Courts in pamphlet form, so as to be useful in all cases of similar import. Any one interested ean obtain copies free at this office, by sending a stamp to pay the postage.

Encouraging Science.—The Vermont Microscopical Association has just announced that a prize of $250, given by the Wells & Richardson Co., the well-known chemists, will be paid to the first discoverer of a new disease germ. The wonderful discovery by Prof. Koeh of the cholera germ, as the cause of cholera, stimulated great research throughout the world, and it is believed this liberal prize, offered by a house of such standing, will greatly assist in the detection of micro-organisms that are the direct cause of disease and death. All who are interested in the subject and the conditions of this prize, should write to C. Smith Boynton, M. D., Secretary of the Association, Burlington, Vt.

Taxing Bees.—Henry Stark, Plier, Wis., on July 2, 1889, asks this question:

The assessor valued my bees last year at $4.00 per colony, and this year at $1.00. There are others who have bees, which were not taxed. The assessor did not tax all the bees in the town or county. Must I pay a tax on my bees, or not?

It was the duty of the assessor to treat all alike—either to assess all, or not to assess any. It is very difficult to get justiee done in this matter, and place every locality on the same basis. In some counties bees are always taxed, and in others they are never assessed. An assessment on the basis of one dollar per colony is quite reasonable—if all were treated alike. As you have this rate, it will not pay to kick very much. It may be increased, perhaps.

The Union.—Here is a letter just received from Mr. J. E. Pond, of North Attleboro, Mass., and dated June 29, 1889, which speaks for itself: "BRO. NEWMAN:—I have read the exhaustive argument of Judge S. W. Williams with pleasure, and *as a lawyer*, I wish to say that no Court can honestly differ from it or decide against it. When I say 'exhaustive,' I mean just what I say. It covers the whole ground; the decision in the Clark case must be for the defendant on constitutional law, and local law cannot avoid the Constitution. The decision *must* be for the defence; it cannot be otherwise."

Now what will our bee-keepers do? Will they say the Union is fighting for us, and we need do nothing; or will they do as they ought in reason and honor to do? viz: to aid the Union by becoming members thereof? Common decency would imply that they should. Now will they, or not?

On the Prevention of Swarming. Dr. C. C. Miller writes for *Gleanings* that he thinks he would give more to learn the best possible way to prevent swarming than to find out any other thing connected with bee-keeping. To the objection that "it is natural for bees to swarm," he replies: "It is just as natural for the swarm to go off." That is true; but the aim of the bee-keeper of to-day is to improve upon Nature's ways, by judicious breeding. Whether the propensity to swarm *can be* modified or bred out, remains to be seen.

Prang's National Flower is the title of a beautiful pamphlet which contains two colored plates of the two most popular candidates for selection as the National Flower of America. It also has two poems, and a postal card addressed to Messrs. L. Prang & Co., Boston, Mass., with a vote to be filled up for the selection of a National flower. The pamphlet costs 25 cents, and can be obtained at this office.

Bees settled in the top of a house near Atlauta, Ga., eight years ago, and the other day, when the gable end was removed, the entire roof was found to be filled with honey. So says an exchange.

To-Day and To-Morrow.

"Build a little fence of trust
Around to-day;
Fill the space with loving work,
And therein stay.

"Look out from the sheltering Bars
Upon to-morrow;
God will give grace to bear whate'er may come
Of joy and sorrow."

GLEAMS OF NEWS.

The Country is Flooded with that article which was written by a sensational reporter for the Philadelphia *Record*, and by it published on June 18, 1889. Now it is appearing in hundreds of papers all over the country. It being only the results of the "vain imagination" of the reporter, dished up in a sensational style, it is all the more acceptable, and "spreads like wild-fire."

The heading of the article is a triple one, and reads thus: "Bees Can Take a Rest. They are No Longer Needed as Honey-Makers. Commercial Cunning Makes the Comb of Paraffine and the Honey of Glucose, and the Public Can't Detect it." Then it goes on in this manner:

Wooden nutmegs must now yield the palm to bees' honey in the comb, *manufactured from paraffine and glucose.* The good old father of hymns, Isaac Watts, in the innocence of his heart, wrote these lines:

How doth the little busy bee
Improve each shining hour,
And gather honey all the day
From every opening flower.

All this, however, is but an illusion, for the bee has lent itself to the deceitful practices of scheming men, and, instead of diligently buzzing from flower to flower and gathering the sweetness thereof, the little deceiver now loafs around in the sweetly scented garden, while a few wicked bee-culturists fill a paraffine comb with syrup glucose and send it broadcast over the land as the honest product of the hard-working bee.

Here is the secret revealed by a confiding grocer, whose enthusiastic explanation of the bee-rearer's deception overshadows the ardor with which he sanded his sugar and put peas in his coffee: You see, there was a time when honey was honey, and honey-comb was pure beeswax, but, like everybody else, some bee-rearers wanted to get rich more rapidly, and the Simon-pure products of the bees would not yield sufficient profits, so the anxious seeker after wealth cast about him for an easier and more rapid road to riches.

It was first found that paraffine closely resembled beeswax, and after many trials combs were produced which were scarcely distinguishable in shape and geometrical accuracy from those actually built by the bees themselves.

Then this scribbling mephistopheles gets his foolish story mixed up in this fashion:

It was then found that when these artificial combs were placed in the hives the bees took to them as if they were of their own making, and filled them with honey. This plan once in operaton became a great saving to bee-culturists, as the bees no longer had to make their own comb, but were able to put in all their work making honey. Of course, now and then somebody objects to the quality of the wax, but the bee-raisers never minded any little thing like that, and they thought that they had struck the acme of success, until they made their next and greater discovery. This was that glucose, or grape sugar, closely resembled honey in appearance, and was a very fair counterfeit as far as taste was concerned. *Then there appeared in the market paraffine honey-comb filled with glucose honey*, and the occupation of the bee was gone. The first attempt was simply an adulteration of honey with glucose, and the proportion of the latter was gradually increased until there was little or no honey.

The Philadelphia *Record* here boldly asserts that "paraffine comb filled with glucose" has "appeared in the market." We ask **when** and **where** it has appeared on the market?

We **demand** that the *Record* find some of it to prove its story! Nothing else can save it from the infamy which attaches itself to the wilful fabricator!

A thousand dollars are offered for a single pound of the "paraffine comb filled with glucose and sealed over by machinery." Now the *Record* must either **put up** or **shut up.**

The last paragraph reads thus in the *Record:*

The Busy Bees' Occupation Gone.—Nowadays the vitiated public taste scarcely recognizes pure honey when it is found, and ninety people out of every hundred eat their glucose in blissful ignorance, and a firm belief that they are partaking of the honest fruits of the labors of the diligent bee. All bees are not so depraved as to lend themselves to the deceptive practices of unscrupulous honey raisers, and some pure honey is still to be had, but it takes a long hunt to find it.

This is simply given to try to cover up its tracks! The statement is made that there **is** some pure honey—that is generous in the *Record* to allow that there **is** some pure honey on the market, but when it says that it "takes a long hunt to find it," it utters a *diabolical lie.*

Pure honey is now being industriously gathered by the bees, and is put up in immaculately pure combs, made of pure beeswax, and all done by the bees; and more, it can be found by any person in every market in America. Tons of it can be procured at market rates on a few days notice at this office.

Now the *Record* must either produce a sample of the bogus comb-honey it talks about, acknowledge that it was imposed upon by a reporter, or else rest under the odium of having told *wilful lies* for the sake of lying and injuring a legitimate pursuit!

Which horn of the dilemma will it take? Several copies of the Philadelphia *Record* have been received from our friends. One each came from the following: D. Marshall & Bro., Philadelphia, Pa.; George L. Transue, Easton, Pa.; and Geo. P. Howell, New Orleans, La.; the latter remarks as follows:

The enclosed article, copied from the Philadelphia *Record*, was published in the *Times-Democrat* of this city.

There are some mighty smart men in this world, and the father of the enclosed must consider himself one; on the other hand the balance has its share of fools that will believe every line in that article.

Yes; it is because of "the fools who will believe the article," that we demand that the charges be substantiated or the author of the falsehood be severely censured.

The Hot Weather which usually prevails in North America during May and June, "slipped a cog" this year, and jumping the Atlantic Ocean, prevailed all over Europe. The Government has issued a pamphlet, giving the report of the statistician, which gives the following for the different European countries named:

England.—May has made a particularly good record, and we enter into June with every prospect of an abundant harvest. There has been a prevalence of brilliant sunshine with high degrees of heat both day and night, which has pushed forward vegetation at rapid pace. Such tropical heat in May has seldom been heretofore recorded, and coming after periods of rain, the result is highly satisfactory.

France.—With the exception of too frequent rain-falls the month marks a satisfactory progress in all vegetation, and the change to bright sunshine, which prevailed for the last four days, will speedily allay the fear of damage from moisture. Outside of any abnormal change in the weather, an abundant harvest is in prospect.

Germany has had fine forcing weather during much of the month of May, which closes with good reports from nearly all sides.

Italy.—The general condition of the Italian crops has lost no ground in the month past.

Austria-Hungary.—In the official report of the Austrian Minister of Agriculture, published about the middle of the month, high mention was made of the beneficial effect of the weather upon the crops. The condition of the winter and spring crops were in most provinces excellent, and in some most favorable. The outlook is said not to have been so promising for years, the only region in which the expectations were moderate being Galicia.

The New Era Expositon will be held at St. Joseph, Mo., commencing Sept. 3 and closing Oct. 5. It has been urged by those responsible for the financial success of Expositions, that unless the horse-jockey had a chance at a purse of thousands of dollars, while the farmer competed for premiums of from fifty cents to five dollars, that the Exposition could not be sustained. The New Era Exposition will try the Experiment of reversing the order of things, relying on the Agriculturists (who have hitherto loudly and justly complained) for an appreciation of efforts and a hearty co-operation. It offers premiums amounting to nearly $3,000, for all products of the farm, including fruit, live stock, BEES, poultry, etc. The list and rules governing exhibits will be mailed on application. Address, The New Era Exposition, Rooms 5 and 6, Post Office Building, St. Joseph, Mo.

Many Good Advertisers invite our readers to send for their descriptive Circulars, etc. It will pay to get these, and see what is for sale, by whom, at what prices, and what things are offered. Every one can learn something in this way. Please always tell advertisers *where* you saw their cards; they like to know, and we like to have them.

BIOGRAPHICAL.

HUBER.

His Life and Services to the Bee-Keeping World.

We take the following interesting sketch from Gravenhorst's *Illustrated Bee Journal*. It was written by Mr. T. Kellen, of Luxemburg. The translation is furnished by W. P. Root, for *Gleanings:*

Francis Huber, by his investigations and researches in apiculture, did more to promote this science than all his predecessors who had employed themselves in the study of this interesting insect. It is his discoveries alone that marked that golden age in the history of apiculture which is destined to remain for all ages. Huber's observations are not only of the greatest importance of themselves, but wonderful for the manner in which they were made; for Huber was blind.

This distinguished man was born in Geneva, July 2, 1750. He was the son of a prosperous and respectable family, which as early as the 17th century were celebrated for their knowledge of the arts and sciences. His father, John Huber (born in 1722, died in 1790), was well known on account of his attachment to the celebrated French philosopher Voltaire.

From his earliest youth Huber showed a passionate predilection for natural history, and he applied himself to study with such zeal as to endanger his health, so that at the age of fifteen the reflection of blinding snow destroyed his sight. If ever a man bitterly deplored the loss of eyesight, that man was Huber. But his misfortune did not hinder him from applying himself to the study of those insects for which he had an especial liking; namely, the bees. It was this little insect that turned the darkness of the investigator into day; for Huber was the first to see clearly into that domain which to the best eyes had previously remained in darkness.

Huber did not lose his vigor of mind, for he went forward in the study of bees: but he could do this only by the help of his wife, Marie-Aimee Lullin; his neice, Miss Jurine, and, above all, his servant Burnens. He himself manifested the most untiring perseveranee, and the greatest ingenuity, so that, by Burnens' sagacity, all of Huber's experiments with bees were practieally demonstrated.

Miss Jurine, who loved natural history above all else, supplemented Huber's work all she could, fearing not to take up the dissecting-knife and microscope in his aid. She was the first after Swammerdam to demonstrate that worker-bees are females. She it was, too, who, with Huber, established the principles on which the sages of our century grounded the doctrine of parthenogenesis. Besides that, Miss Jurine was Huber's secretary, full of willingness and self-devotion. Every day she noted down the results of the new investigations, and she also wrote the letters, which Huber dictated, to Charles Bonnet and his friends, and imparted to him the results of his labors, and directed their attention to numerous questions relating to bees.

Huber's interest in bees was greatly enhanced by the researches and writ-

FRANCIS HUBER.

ings of Swammerdam, Reaumur, Schirach, and probably also the celebrated Swiss bee-keeper, Duchet de Remauffens, and the Messrs. Gelieu. As a conclusion to the investigations of these men, it was possible for him, in spite of his unfortunate surroundings, to add greatly to the realm of apiculture; hence we may not forget that he everywhere encouraged and helped others by the nobility of his life.

In his latter days he lived retired, but in peace, at Lausanne, where he died Dec. 22, 1832, at the age of 83.

Huber's discoveries are known to scholars through his letters to Charles Bonnet; and they made his name so celebrated in all Europe, and even in America, that for many years he was recognized as the greatest apicultural genius; and even yet Hamet calls him the greatest of the lovers of bees (*le plus grand des apiphiles*).

It was in 1796 that his first epoch-making work was brought to light, bearing the title, *Nouvelles Observations sur les Abeilles* (New Observations on Bees). His son, Peter Huber, in 1814 issued the work in two editions, and added thereto an appendix in regard to the origin of wax.

Huber's work is, not only on account of its contents, but for the peculiar circumstanees under which it was first brought to light, entirely without parallel in scientific literature. The recognition which it received was universal, so that, after the first appearance of the work, Huber was received into the French Academy of Sciences, and other scientific bodies.

The New Observations were translated into nearly every European tongue. The Saxon commissariat Riem, in Dresden, translated it into German in 1798, and Pastor Kleine, of Luethorst, translated it again in 1856, and published another edition in 1869, with notes.

Huber, by his observations on the secrets of bee-life, made clear what the most sagacious and learned observers from the time of Aristotle and Aristomachus down to Swammerdam and Reaumur had sought for in vain; and it is to be the more regretted that some German bee-keepers of great influence, such as, for instance, Spitzner and Matuschka, gave him no recognition.

He gave interesting explanations in regard to the habits of bees, their respiration, the origin of wax, the construction of comb, etc. He confirmed Schirach's proposition, that by a change in the mode of treatment and food of larval bees, queens could be reared from worker-eggs, and showed, likewise, the influence which the cell exerted on the insects.

He showed further, that not only the queen but a certain species of worker-bee could lay fertile eggs, and showed, likewise, the function of drones. In opposition to Braw, Hattorf, Contardi, Reaumur, and others, who held very peculiar opinions in regard to the fertilization of queens, Huber showed that the fertilization takes place outside of the hive, at the same time that drones are flying, and that the union is effected in the air, and that the queen, on her return from the flight, has adhering to her body the evidences of fertilization, and that egg-laying takes place about 46 hours afterward.

These and numerous other experiments he often proved in his works with the utmost exactness; and especially did he lay down the most important and interesting information in regard to feeding bees, their method of building, the leaf-hive, foul brood, etc., in his letters to an eminent apiculturist in Switzerland, Mr. C. F. P. Dubied. These eighteen very long letters of Huber, the first of which was

dated Oct. 12, 1800, and the last Aug. 12, 1814, were written partly by Huber himself, partly by his wife or daughter, to whom he dictated. So far as I know, this correspondence has never been translated into German, which is greatly to be regretted.

When one reads of Huber's observations, it becomes evident that the author interested himself in bees, from a scientific stand-point only. In one of his letters to a friend, he writes that he never realized any material benefit from bees. This is easy to understand when we consider that his experiments with them lasted the entire year through, and were conducted only for the sake of science; and one naturally inquires how he found bees enough to carry out his numerous experiments.

QUERIES and REPLIES.

How to Secure Large Increase of Colonies.

Written for the American Bee Journal

Query 642.—I have between 80 and 100 colonies of bees, and desire to increase them greatly by natural swarming. 1. What shall I do to accomplish it? 2. Will liberal feeding do it?—VA.

Your second query answers the first. —J. M. HAMBAUGH.

1. Confine them to the brood-apartment. 2. Early feeding will help, if short of stores.—H. D. CUTTING.

1. Feed and give no surplus room. 2. Yes, with treatment as just stated. —MRS. L. HARRISON.

Liberal feeding and contraction of the brood-chamber will promote it.— J. P. H. BROWN.

Let them swarm. You will probably get all you want this year.—C. H. DIBBERN.

1. Feeding liberally for three weeks before an expected flow of honey, will accomplish it.—G. L. TINKER.

Stimulate by feeding sparingly until the harvest opens, then work for swarms, not honey.—A. J. COOK.

2. It will do it sometimes, but not always. Daily moderate feeding is better than liberal, for the purpose.— P. L. VIALLON.

1. They will do it themselves, probably too much. 2. That will help, but it may not pay in all cases.—C. C. MILLER.

Liberal feeding and contraction of the brood-nest will undoubtedly accomplish the desire of your heart.— EUGENE SECOR.

1. If I desired to increase greatly, I would not do it by natural swarming. I would rear queens and divide, using full sheets of foundation. 2. Liberal feeding will promote swarming, of course, provided that it is done regularly and steadily, when natural resources are not abundant.—M. MAHIN.

Yes, and crowding the queen by contraction; but it is a poor way. We would prefer rearing good queens, and making swarms by dividing.—DADANT & SON.

If your yield is good, and you hive after-swarms, they should increase all you desire without feeding.—G. M. DOOLITTLE.

1. Have prolific queens, and do not try to secure any surplus honey. 2. If there is not an abundance of honey being gathered, judicious feeding will help.—A. B. MASON.

1. If there is a good honey-flow, they will be apt to swarm at least once. I have tried everything that I ever read of, to prevent swarming, but never succeeded. 2. Feeding will be a help, if honey is scarce.—MAHALA B. CHADDOCK.

Adopt the nucleus plan of "artificial" swarming; feed liberally when needed, and build up. Keep at least one-half of the colonies intact, to draw brood from, with which to build up the nuclei.—J. E. POND.

A good honey-flow is what you should have. Liberal feeding will help greatly—but, it is "dangerous." I think, upon the whole, if it were me, I should let Nature have her own way.— WILL M. BARNUM.

1. Hive each swarm on a new location, and retain with the swarm only sufficient bees to build up into a good colony, letting the rest go back. If that does not make it lively enough for you, feed in times of scarcity.—R. L. TAYLOR.

If the season does not furnish the means to your ends, produce them by feeding. Feed just enough to promote the rearing of brood, and feed daily. Do not feed so much as to gorge the combs, but feed just enough—observe closely, and feed "just enough."—J. M. SHUCK.

You can encourage swarming by giving the bees only just enough surplus room at once to keep them busy; that is, none to spare. Do not keep them well shaded, but allow solar heat to make their home uncomfortable. Pray for a favorable season for swarming. You need not feed.—JAMES HEDDON.

1. Go right ahead, and take all the comb honey that you can procure by good management, and if the season is a good one, the bees will swarm more than would suit me. 2. Yes, if your bees are short of stores, liberal feeding will hasten swarming, if done at the right time in the spring; and if the bees have plenty of stores, uncapping some of it will stimulate breeding. It will pay you best, in the long run, to take all the honey you can while your bees are increasing.— G. W. DEMAREE.

Probably it will be as well to divide the colonies and thus increase them. If honey is plenty, they will not need feeding; if it is not, then feed them liberally.—THE EDITOR.

CORRESPONDENCE.

VIRGIN QUEENS.

The Successful Introduction of Virgin Queens.

Written for the American Bee Journal

BY E. STRONG.

In the near future a method of introducing virgin and "old maid" queens will be established, which will be reasonably successful in the hands of experienced men. We shall all be pleased to learn how; and to this end I will relate the circumstances of a recent case:

Finding several young queens in one hive, kept in by the bad weather, I separated them into small nuclei. The bad weather continued, and at the end of five days a swarm issued from another colony, as soon as the sun came out. From the old colony I removed two frames from one side, and in their place I put the two frames, bees and all containing the virgin queen, leaving her on the outside, and leaving a half-inch space between the two frames and the other frames of the old hive.

The old hive was placed in the rear of the new swarm. This space being more than a bee will readily cross, acts, in this case, as a division-board, and the young queen will naturally remain in her division for a number of hours, but not longer, and she probably will not be seen there again. The increased heat and noise of the new home will induce her to mate without delay, and her return to the old stand of the nucleus, increase the danger of her loss.

This introduction succeeding, I tried another of similar age (five days), by placing her on a frame of mostly young bees, put down outside the hive. But they made a furious attack, and the poor queen yelled for help. By the peeping of an introduced queen, the "balling" can be discovered without opening the hive.

This introduction *not* succeeding, I returned her to her nucleus, and

when she was seven days old, and unmated, I succeeded in introducing her to a full colony, covering 30 frames and filling three brood-chambers. This colony lost its queen with clipped wings, by trying to swarm. Three frames were removed from the top story, and at the side, and the three frames of the nucleus substituted, leaving space as before. There were about fifty bees with the queen in the nucleus. In two days after, I found her in the bottom story mated, but not laying. This young queen was very dark, so that there was no question as to identity.

I am aware that to make these introductions beyond question, the wings of the queens should have been clipped, so that they would have remained unmated; but some one else can try that. I am satisfied.

Of course, hatching queens can be run in at the entrance, or under the quilt, with an average loss of about one-third.

Kalamazoo, Mich.

QUEENS.

Results of Experiments and Observations.

Written for the American Rural Home
BY G. M. DOOLITTLE.

In this article I wish to give a bit of my experiences as regards introducing queens, rather than to point out any particular method for so doing.

In a practice of nearly twenty years, many things have come under my observation which have been interesting, and have thrown light on an operation which has many times proven, not only to myself, but to multitudes of others, to be not always a successful one.

Heretofore the loss of the queen has been charged mainly to the bees rather than to the queen, parties even being so rash and provoked as to crush a ball of bees enclosing a queen, under their feet, when in reality the queen was the one to blame. Many queens would never be molested in the least by the bees if they would behave themselves as they did in the hive they were formerly in; and I venture the prediction, that when we arrive at a plan that will always place the queen with strange bees in the same quiet condition she was in while in the hive in which she was reared, we shall be successful every time. To substantiate this position, I will give some of my experience in the matter.

Some years ago I had a queen which began failing during the forepart of the season. Wishing to replace her, I went to a nucleus and took out their queen, which had been laying about a week; then going to the colony having the failing queen, I removed her and placed this young queen on the combs instead of the old one. She immediately commenced to "peep," just as a virgin queen does when there are rivals in the cells in a hive calculating to send out an after-swarm. To this the bees paid no attention, but came to her, with the intention of feeding her, to all appearances; but instead of taking food offered by them, she put out her foot and struck at them, or laid hold of their heads with her feet, and continued "peeping." She passed around among the bees, "peeping" at intervals for about five minutes, I should judge (I watching all the while), when she came to a young bee just hatched, all white and fuzzy. She immediately uttered a short "peep" and then clinched the little thing, and stung it so it curled up and died in an instant. At this the bees became exasperated, and showed signs of hostility for the first time, they now beginning to lay hold of the queen for the first time, as far as I had noticed.

With a little smoke I dispersed them and still continued to watch. In about 15 minutes she stung and killed at least a half dozen of these young bees, and was seized each time by the bees, but I as often dispersed them with smoke; at all other times they were ready to feed her and treat her as they did their old queen. Once or twice she took food of them, but as a rule, struck at them with her feet when they offered her food. I closed the hive and left them then.

Upon looking the next day, I found queen-cells started, and supposed her dead; but in about two weeks, or such a matter, they cast a swarm, and, lo! there was my queen running around in front of the hive, for her wings were clipped. I opened the hive, but found no eggs or brood (except sealed brood), cut off the queen-cells, and returned the bees, upon which she commenced laying, and made a fine queen. I have had several such cases since, yet none quite as persistent as was this queen.

Again I have had queens which the bees treated as they would their own queen, but they would not stay in the hive at all. They would run out at the entrance, often followed by a few anxious bees which would feed them and keep them alive. I had one out thus till I had put in another queen, and she had begun to lay when I found the first under the bottom-board of the hive with a few bees with her.

Thus many facts in my experience go to prove that the queen has more to do with the loss sustained in introducing than the bees. Well, says one, "If this is so, how can I remedy it?"

The plan I have lately adopted is this: Make a cage out of wire-cloth, having about 16 meshes to the inch, large enough so that it will cover some honey and quite a little hatching brood, by cutting little squares out of each corner, and then bending the sides up at right angles, so as to form a bottomless box, as it were.

Remove the queen you wish to supersede, shake the bees from the comb, and place your queen on it where there is some honey and hatching bees, and then place the cage over it, pressing the edges of the wire-cloth into the comb till the cage does not project beyond the surface of the comb more than half of an inch.

Hang the comb in the hive, leaving three-fourths of an inch between it and its fellows, so that the bees can go all around the cage.

In a few hours, or the next day, open the hive, and if the queen is reconciled to the strange colony, she will be quiet, and the bees quiet on the cage. When you find it thus, it is generally safe to lift the cage, when she will go quietly among the bees the same as she would have done in her own hive.

The presence of the young bees with her, which have hatched from the brood enclosed within the cage, has much to do in expediting matters and reconciling the bees and queens.

If on the contrary the queen is found running around, and the bees are biting at the cage, do not let the queen out, till such conditions cease to exist.

The above are the conclusions which I have arrived at, which may not be entirely correct, still I believe them to be nearly so, in the main. I have introduced hundreds of queens as above, and rarely if ever lose one.

Borodino, N. Y.

SEPARATORS.

Their Proper Width for Use in One-Pound Sections.

Written for the American Bee Journal
BY JAMES HEDDON.

The 4¼x4¼ sections to hold a single pound of honey usually measure just 4 inches in the clear, inside. If the separator is less than 3½ inches in width, the apiarist will not use it long before he will sincerely wish it was not.

A quarter of an inch is ample passage way for bees when passing one at a time, there being no wood directly above the edge of this separator, but a bee-space; if you will measure from the upper edge of the tin on an angle of about 45° to the nearest edge of the wood to the section, you will find you

have ⅞ of an inch, or sufficient space to allow two bees to pass at a time, if one was carried on the back of the other.

Every observing comb-honey producer well knows that under conditions which frequently happen during our honey harvests, if these separators are misplaced the least bit, so as to leave a little more than ¼ of an inch between the top edge of the separator and the line of the edge of the top-bars of the sections, the troublesome extended cells will result. Where the wide frames, or storing cases, are not to be reversed, even with a 3½-inch separator, I prefer to put it 1-16 of an inch nearer to the top than the bottom of the inside of the sections.

Dowagiac, Mich.

HONEY.

Is it Digested Nectar? If Not, What is It?

Written for the Rays of Light

BY J. E. POND.

I am not a scientist, neither do I wish to provoke an acrimonious discussion, still I ask in all seriousness, What is honey?

In days past we have been told it was the nectar of flowers from which the water has been evaporated by the bees. This answer would seem "to fill the bill;" still, when viewed on a strict scientific basis, it does not, for the reason that it does not quite "come up to the mark," in that it does not "tell the whole story."

Next we hear of some digestive process that this nectar undergoes in the stomach of the bee; this again does not satisfy us, for the reason that it neither explains that "digestive process," or offer any proof of the same.

Then we have the bee-sting or "formic acid" theory, which, while plausible, is not satisfying; no proof at all being offered. In fact, all and every idea advanced is theory, and theory only.

Now what is the fact? Is there anyway by which the truth of the matter can be arrived at? Diluted sugar, when sealed up in the comb, comes out as sugar; if scented or perfumed in any way, that distinct scent or perfume remains. Now if sugar-syrup undergoes no change while being carried to and deposited in the hive, what evidence is there that the nectar of flowers undergoes any change while in transportation to the hive or after being deposited therein? Can any one explain, if any digestive change does take place, just what that change is? or why it does not affect sugar-syrup or other artificial food, as well as the nectar of flowers?

As I said at the beginning, I am not a scientist. I am after information. I do not want theories, though, but facts; I want to know if any one does *know anything positively* about the matter; or whether any one has by any experiments conducted on purely scientific principles, ascertained any facts that they dare give as such, that explains the matter fully and completely? That is, Can any one tell us why sugar syrup remains such, while nectar undergoes a chemical change in the stomach of the bee, while in process of transportation?

For myself I believe as a matter of theory, the "formic acid" exponents have the best of it; but who can say that they are right or wrong?

North Attleboro, Mass.

One Hundred Years Ago.

(TUNE—*A Thousand Fathoms Deep.*)

Our's a land baptized in blood,
One hundred years ago!
Brave and grand, it proudly stood,
One hundred years ago!
In Freedom's name it sealed the height,
Of peace, and truth, and moral might,
And planted there its starry sign,
Its honored flag—our flag divine!
One hundred years ago!
One hundred years ago!

Wives and mothers mourned their slain,
One hundred years ago?
Bore this cross of cruel pain
One hundred years ago!
God's will it was that heart and hand,
Should strike the shackles from our land,
And cause the power of pen to trace
Eternal rights for all the race
One hundred years ago!
One hundred years ago!

Loyal, earnest, gathered few,
One hundred years ago!
Planting better than ye knew,
One hundred years ago!
Sixty millions now we count,
Who daily drink from freedom's fount
And kneel before the shrine
Ye built by deeds divine
One hundred years ago!
One hundred years ago!

—*Ella Dare, in the Inter-Ocean.*

SEPARATORS.

Their Use a Necessity in Producing Comb Honey.

Written for the Western Plowman

BY C. H. DIBBERN.

As to separators: I claim that no strictly A No. 1 honey can be produced without them. What I mean is, that it is so perfectly built in the sections that all can be glassed on both sides if wanted. I always thought that honey produced with separators was whiter, and there is good reason for this, too, as separators get fully half of the travel of the bees.

I know that many otherwise good bee-keepers differ from me on this point, and even claim that they can have comb built almost as straight without separators. I have never seen such, and I cannot produce honey without separators that is satisfactory to me. If only a small quantity for one's own use is produced, it would make little difference. When thousands of sections have to be handled, however, combs should be so straight that any two should fit up against each other without the comb interfering.

I imagine that in the near future, grocers will be more discriminating on this point, when they once fully realize the difference. They may be impertinent to ask, "Did you use separators?" and, if not, refuse to buy, or "dock" you one to three cents per pound. Some have contended that not nearly so much honey would be stored if separators are used; but my experience is that it makes no difference. I certainly do not want any surplus honey stored without separators.

Dividing Colonies.

A party writes me and asks why I do not divide my bees, and thus get around the nuisance of natural swarming; and claims that it is much the best way. Now, I had the "dividing craze" some 15 years ago, and it proved no "howling success," either.

The objections to dividing about swarming-time, are many and well founded. Take a good, strong colony, that might be expected to swarm soon, and storing nicely in the sections, and what is the result? The bees are divided, each half, if rightly done, and a queen given has double the space needed in the brood-chamber that will be filled before there is any more storing in the sections. Perhaps if the hive had been left alone, it would not have swarmed for two or three weeks, and perhaps not at all, and storing surplus would have been going on all this time. It is not dividing that we want, but rather contracting and doubling up.

The Kind of Sections.

I am often asked what kind of sections I prefer to use, and if it is really necessary to use separators? I have tried many kinds of sections, and studied the matter a good deal, and although I use several sizes, I prefer the white-wood one-pound dove-tailed sections. They are so immaculately neat, and the demand seems to be more for that size, so that honey in such sections sells for one and two cents more than larger sections.

Now the question arises, can we produce honey as cheaply in the one-pound as in the two-pound sections? I have studied this matter for some years, and have come to the conclusion that there is little difference as to

cost. Of course, two one-pound sections cost a little more than one two-pound section, but as they are sold with the honey, they will weigh a little more, too. I think that the bees will store just as much in one size as the other, and I think that the one-pound sections make the best-sized cases to put on the hives. They are also a little the nicest to handle in every way.

The one-piece basswood sections I do not like so well, although they are more quickly put together. They are never so white, and are often inclined to be "woolly" and rough. The naughty corner is also liable to spoil some adjoining comb, if not carefully handled.

Milan, Ills.

MICHIGAN.

Its Northern Resources for the Production of Honey.

Written for the Michigan Farmer
BY GEO. E. HILTON.

As several have written me, asking if I thought their locality adapted to bee-keeping, I have prepared the following, hoping it will aid many in judging for themselves.

If one takes the time to observe, and the trouble to enumerate them, he will be astonished at the almost endless variety of honey-yielding plants within the State. It would require a skilled botanist to name them all. The all-wise Father has provided nearly all trees and plants with either honey or pollen to attract the insect world. He spreads a continual feast for the bee, that the important object of perfect fertilization may be more easily attained.

The bee that sips from flower to flower, rollicking in the golden dust among the newborn anthers, playing "hide and seek" in the opening corollas, is performing a work of untold value in the wise economy of nature.

The honey secreted in the blossom is for the purpose of inviting cross-fertilization, and to prevent in-and-in breeding. If no insect is there to utilize the drop of nectar, it is evaporated and scattered to the four winds of heaven. No one is richer for the ungathered sweets; and no one is poorer whose fields are searched by the tireless little workers, whose instinct leads it to garner the evanescent riches which, of a truth, take to themselves wings and fly away.

From the trailing arbutus, that peeps out of the snow on some hillside, to the last frost flower in autumn, there is almost a continual succession of honey-producing flowers, whose wealth of nectar ought to be utilized as one of the resources of this grand State.

California may occasionally astonish us with her magnificent honey crop, but in Michigan, where "the early and latter rains" are not only promised but sent, we are always confident of a reasonable surplus.

The pastures and roadsides are covered with white clover, which yields the finest honey in the world. The rivers and lakes are generally skirted with basswood timber, one of the best honey-producing trees in America, yielding a nectar that is prized for its beautiful amber color and aromatic flavor.

Every fence corner and neglected field is planted by the hand of Nature, as though she were trying in some way to counteract man's shiftlessness, by making the earth bring forth abundantly some of the good things of life.

It is of importance to bee-keepers to know just when this succession of bloom occurs, that they may have their bees in the best possible condition to secure the nectar. So far as my observation and knowledge extends I will briefly enumerate them:

About the first pollen comes from willow and soft maple, usually about the middle of April, varying with the season. In the early part of May comes the hard or sugar maple, and this tree deserves more than a passing notice; it produces both honey and pollen in large quantities, and I sometimes feel that were our bees in the same condition they are at the approach of basswood bloom, we would receive nearly the same results.

Fortunately, my bees three years ago were very strong early, and many of them stored considerable honey from this source, and it being followed closely by the raspberry and blackberry bloom (with which this country abounds), I secured at least a thousand pounds of surplus previous to the opening of white clover bloom, from 60 colonies in my home apiary.

White clover opens from the 1st to the 15th of June, and in my 12 years of bee-keeping, has but once failed to give us a fair surplus.

There is no gap between clover and basswood in this latitude; in wet seasons the clover often continues until after basswood ceases. The basswood opens from the 4th to the 20th of July, according to seasons, but cannot be depended on in this latitude; it is more sensitive and more dependent on atmospheric conditions than any other bloom. In this latitude we usually get one or two days however, and once I remember that ten days it secreted honey during the bloom. I find it does better along rivers and lake shores than on the uplands.

After this there is a gap in the honey-flow until the buckwheat, fireweed, golden-rod, asters and boneset come into bloom, in which, aside from buckwheat, this country abounds: it usually affords us some surplus, but the greater part goes to the brood-nest for winter stores; in fact I have never had to resort to sugar for winter stores, and I hope I never shall.

There are many more annuals and shrubs that go to make up the honey flora of northern Michigan, and we have some disadvantages our Southern brethren do not have, but taking all in all, I think the northern half of the lower peninsula better adapted to the pursuit of bee-keeping, and that the honey is of better quality than in the southern half.

Fremont, Mich.

Z. A. CLARK.

Bee-Keeping Declared Not a Nuisance.

A Condensed History of the Case,
DEFENDED BY THE UNION.

In May, 1887, the Arkadelphia City Council, Ark., passed an Ordinance, which, with its preamble, read thus:

The preamble states that, "Whereas, a petition from many citizens of Arkadelphia, having been previously presented to this Council, setting forth that the raising of bees or keeping them in the City of Arkadelphia was injurious and destructive to property, such as early fruit, and dangerous to citizens when riding in vehicles or on horseback upon the streets, and a pest in many of the houses in said city, having stung many persons, and especially children, while walking the streets and sidewalks."

The ordinance as adopted is substantially as follows:

"Be it ordained by the City Council of the City of Arkadelphia, That it shall be unlawful for any person or persons to own, keep or raise bees in the City of Arkadelphia, the same having been declared a nuisance.

"That any person or persons keeping or owning bees in the City of Arkadelphia are hereby notified to remove the same from the corporate limits of the City of Arkadelphia within thirty days from date hereof."

SECTION 2 provides a penalty of not less than $5.00 or more than $25.00 for a violation of the ordinance.

The cause for this action was the fact that Mr. Z. A. Clark, who has kept bees in that city, was not in political harmony with those in power, and the latter sought to punish him and get rid of his presence, by prohibiting the keeping of bees within the corporate limits of the city.

Some of the more ignorant ones declared that his bees were "eating up the peaches!" and others, that they were "eating up the young ducks!" Preposterous as it may appear to those who are better informed concerning

the formation and habits of bees, yet it is true that many accepted these ridiculous charges as *truth !*

Mr. Clark was ordered to remove his bees by June 6, 1887. He did not remove them ; and on Jan. 2, 1888, he was arrested; and fined, day after day, for ten successive days, for maintaining a *nuisance*, by keeping his bees in the suburbs of that city.

Not paying the fines, Mr. Clark was committed to the city jail, by order of the Mayor.

Mr. Clark being a member of the "National Bee-Keepers' Union," very naturally appealed to it for protection. Being clearly in the right, and worthy of defense, the "Union" engaged the services of Major J. L. Witherspoon, ex-Attorney-General of Arkansas, and several other attorneys, to defend the bees and their keeper.

This case was important because it was the first time that it was sought to exterminate the bees from the suburbs of a city, by declaring them a nuisance, by Ordinance. If allowed to stand, it would be a precedent to be followed, wherever a bee-keeper was obnoxious to the ruling majority ; his *rights* would be ignored, and the bees condemned by ignorant and prejudiced persons for selfish motives.

The National Bee-Keepers' Union, therefore, concluded to carry the case to the Circuit Court, for it would be very detrimental to the pursuit to allow an ordinance against bee-keeping to remain uncontested, and to be quoted as a precedent against the keeping of bees, because it had been declared "a nuisance" by a City Council in Arkansas.

By the enforcement of that unlawful ordinance of the city, Mr. Clark was deprived of his liberty, and the constitutional rights guaranteed to every citizen in the United States.

Even granting that it was wrong in Mr. Clark not to obey the city authorities, he should have had a speedy trial by an *impartial jury*—all of which had been denied him. Even when released under a writ of *habeas corpus*, he was, within three hours, re-arrested and fined.

After demanding a change of venue, because of the prejudice of the Mayor, that functionary again fined him, denying him his constitutional rights.

The Circuit Court convened in July, 1888, and the Hon. Sam W. Williams, of Little Rock, was added to the attorneys for the Union. Our attorneys, Judges S. W. Williams, Witherspoon, Murray and McMillan, made a motion to dismiss the case against Mr. Clark, "because the ordinance of the City of Arkadelphia, on which the prosecution is founded, is void and in violation of law."

Then Judge S. W. Williams read section after section of law, in Mr. Clark's favor, showing that a man's right to hold property is paramount to all Legislative power; and any attempt to take away such right is unconstitutional.

After which, Judge Hearn stated to the attorneys that he had lived a long time in Arkadelphia, and that bees had been kept there all the time, and that he had not heard any complaint until this case came up. He added that the case would go to the Supreme Court, no matter in which way it was decided in his Court, and he wanted to be found on the right side when decided in the Supreme Court.

He then sustained the motion of the attorneys for the Union, to dismiss the case, and he declared the ordinance of the city "*illegal and void !*"

The city attorney then gave notice of his appeal to the Supreme Court.

The appeal to the Supreme Court was heard on June 22, 1889.

Messrs. Crawford & Crawford, attorneys for the city, argued in favor of the validity of the ordinance. Their argument may be summed up thus :

In Huckenstein's Appeal, 70, Penn., St., 102, s. c., 10, Am. Rept. 669, *supra*, it was said, "If a man lives in town, of necessity, he must submit to the consequences of the obligations of trades, which may be carried on in his immediate neighborhood, which are *actually necessary* for trade and commerce, also for the enjoyment of the inhabitants of the town." However convenient for Appellee to own, keep and raise bees in the City of Arkadelphia, it cannot be contended that the business is at all necessary for trade and commerce, the enjoyment of property, or for the benefit of the inhabitants of the city. His business can be carried on just as successfully at a distance from the city, without interfering with the comfort and convenience of its inhabitants.

Bill Nye, in a recent communication to the press, tells of a Mr. Joseph Lininger, near Huntington, Ind., who has established there a "Skunk ranch," and is doing a very profitable business in that line. Should he conclude to move his ranch into the City of Arkadelphia, he could object to having his business declared a nuisance, with as much show of right, as the Appellee now maintains.

"There is no common right to do that, which, by a valid law, or ordinance, is prohibited : and courts will not declare an authorized ordinance void because it prohibits what otherwise might lawfully be done."

It is contended that this ordinance is invalid, because, instead of regulating the keeping of bees, it prohibited the business altogether. We can see how the City could regulate the keeping of goats, dogs, hogs and cows, but it would be impossible to pass an ordinance allowing bees to be kept within the corporation, and at the same time regulate the business so as to prevent them from flying abroad. You cannot build a wall high enough to keep the bee from ranging. Suppose an ordinance should be passed, allowing the owning, keeping and raising of bees in the city, but prohibiting any one, under the penalty of a fine, from allowing his bees to fly in the streets, or trespass upon other people's premises. Such an ordinance, with the condition annexed, would deprive Appellee of the claimed right, and would be a kind of Legislative juggling that would

> "Keep the word of promise to the ear,
> And break it to the hope."

This ordinance in this case would not have been a whit better if it had allowed every citizen to keep one or more hives of bees. If one hive would not be a nuisance, how many would be ? Where is the line to be drawn ? We contend that the City Council ought to be, and is, the only proper judge, and its action will be final, unless it has clearly exceeded its authority in the passage of the ordinance.

Among the abstract of decisions, prepared for the Arkansas *Gazette* by W. H. Pemberton, of the Little Rock Bar, dated Saturday, June 22, 1889, we find the following opinion by the Court :

127 (Crim.) City of Arkadelphia *vs.* Z. A. Clark.

The Appellee Clark was convicted in the Mayor's Court of Arkadelphia for a violation of the city ordinance. The ordinance under the prosecution was had provided that it shall be unlawful for any person or persons to own, keep or raise bees in the City of Arkadelphia, the same having been declared a nuisance. Upon an appeal to the Circuit Court, that Court sustained a demurrer filed by the defendant, and dismissed the prosecution.

HELD.—Neither the keeping, owning or raising of bees is in itself a nuisance. Bees may become a nuisance in a city, but whether they are so or not, is a question to be judicially determined in each case.

The ordinance under consideration undertakes to make each of the acts named a nuisance, without regard to the fact whether it is so or not, or whether bees in general have become a nuisance in the city. It is therefore too broad, and invalid.

Affirmed.

The reply of Judge Williams was lately given in full, because of its great importance and value for reference.

THOMAS G. NEWMAN,
General Manager.

ZOOLOGICAL.

Ravages of the Grain Plant Louse, Incorrectly Called "Green Midge."

BY PROF. A. J. COOK.

FRIEND NEWMAN :—Having received many letters about this insect, asking for replies in the AMERICAN BEE JOURNAL, I send you the following, being Bulletin No. 50, published by the "Agricultural College of Michigan," which I wrote for the Experimental Station on June 27, 1889. This will

answer all the questions sent to me, and anticipate others, perhaps. It is as follows :

The present season is characterized by one of those wide-spread and very damaging insect invasions that is so discouraging to the farmer. I refer to the present onslaught on the wheat crop by the grain aphis or plant louse, *Aphis avenæ*. This louse attacks wheat, barley, oats and rye, and is to be found in small numbers on these grains every year. This year occurs one of those terrible attacks that seem to threaten very serious loss. This raid extends from Ohio west to Indiana, and north to Grand Rapids, Mich. Of this much I am certain. I do not know whether it reaches in such overwhelming numbers to other States or not. So abundant are these lice that they have attracted wide attention and awakened serious alarm. For the past two weeks I have received daily numerous specimens of these lice with the inquiry : What is to be the outcome of this attack ? I have received as high as 15 such communications in a single day.

What is It ?

This is a plant louse, or aphis, and is very similar to those that attack our house plants, cherry, plum and apple trees, cabbages and hops. Indeed, so numerous are the species of these lice that hardly one of our valued plants but has its plant-louse enemy. These plant lice have flask-shaped bodies, are usually green or black, though sometimes they are yellow or red, and are usually quite small. In looking at the grain aphis at this season, four forms will be seen : A small wingless louse, a large wingless form—the full grown apodous or wingless louse ; the pupa of the winged louse which has short wing pads ; and the mature winged louse. We usually find these four forms at some season of the year in all plant-lice colonies.

Frequently, and this was true a few days ago of this grain aphis, we only find the wingless forms. Later the pupæ with wing-pads and the fully developed winged forms are seen. These winged lice are doubtless developed that the lice may spread before their food is wholly destroyed, and they are confronted by famine. The mature wingless louse of this grain aphis is about one-tenth of an inch long. The winged louse is nearly twice as long to the end of the wings.

This louse is not quite as slim as is Aphis mali (see Fig.) As will be observed by examining the lice, or by studying the figure, these lice have long, seven-jointed antennæ—the horn-like organs appended to the head, and the winged lice have simple veined wings. The main vein of each wing is branched. There are four branches in the front or primary wings. The outer one is strongly curved, and the next one branches twice. There are two simple branches on the posterior wing. This style of venation is characteristic of the genus aphis. We also note (see Fig.) that there are two short spine-like projections, black in the grain aphis, on the hind part of the abdomen. These are the nectaries or honey-tubes ; so called because there frequently exudes from them a nectar which attracts ants and bees to these lice.

Just now (June 26, 1889) a species of plant louse on our Norway spruces are secreting nectar so profusely that in the early morning it stands on the leaves in drops, so that it can be tasted. It seems very pleasant to the taste, and is giving the bees a fine harvest. This peculiar physiological characteristic serves the louse in this way : by attracting ants, wasps and bees, the birds and insect enemies of the lice are frightened away. I find that the oats and wheat are visited by ants that the nectar secreted by this grain aphis may be secured. The beak of this grain aphis is strong, dark in color, and about one-third the length of the body. With this the louse sucks the sap and devitalizes the plants. The feet and joints of the legs, and also the antennæ are dark or dusky in color.

The color in these lice varies greatly. Early in the season while they are on the leaves or stalks they are green. This is the color now of all healthy lice on the oats. After they migrate to the heads they often turn yellowish green, and even rust red, though I find that now the green color prevails even with the lice which are gathered thickly about the kernels. Some of the winged lice are very dark, almost black. It is probable that the nature of the food affects the color. As the berries mature I think the yellow and red colors will prevail to a larger degree.

Reproduction of the Lice.

The reproduction of plant lice is very curious. Late in the season we find both sexes. This is the only time that we find males. The sexes now pair, and eggs are laid about buds, in crevices, or where they will best survive the winter. In the spring only females hatch from these eggs. These do not lay eggs, but each gives birth to from three to five lice each day. In about four or five days these young lice begin to produce living lice, each contributing daily its four or five new lice to help on the general devastation.

Such early and rapid breeding implies great nutrition, and we easily understand why the plants wither and dry up. We also see how the lice become so quickly numerous and widespread. Calculation shows that in less than a month, if no lice die or were killed, a single louse might be the progenitor of more than several million lice. To follow the numbers further defies comprehension. Many have written me : "We cannot imagine where the lice could come from so quickly and rapidly." The above fact explains this physiological riddle.

Why so Numerous this Year.

This is not the first season that this avenæ has come like a destroying flood upon the grain fields. In 1861 the lice swarmed upon the cereal crops of New England and New York, at which time Dr. Asa Fitch fully described it in his sixth report. In 1866 and again ten years later it did great damage in various sections of the West. We see then that this louse does not come yearly, but only at long intervals. Why is this ? It is doubtless owing in some measure to the weather, but more to its insect enemies.

We readily see that its enormous prolificness would make it as the sands of the seashore every year, except that some natural agent held it in check. Fitch describes three such enemies. Even now, as we visit the oat and wheat fields, we find many forms different from any previously described. These have short, rounded bodies, which are of a dirty white color. The cause of this is that these are attacked by parasites, which are eating them up.

We have reared several of these little benefactors, and find them now busily engaged in the fields laying the eggs that will destroy the lice. These minute parasitic insects lay a great many eggs, one in each louse, and their presence and prosperity mark the doom of the lice. Thus through the agency of these minute parasitic forms, aided by climatic influences, we are to be saved from a raid by this grain aphis next year, and will be greatly benefited this year. Indeed, in some cases, these little friends will very likely save us from serious damage. Why the parasites are not able to come successfully to the rescue each year is still unknown. Very likely this problem will receive a very valuable practical solution in the future. In these parasites the entomologist sees the doom of the lice, but not, I fear, till great harm is done.

Dry weather is a great promoter of insect productiveness. It is more than probable that the exceeding drouth of 1887, 1888, and of the April and May just past, together with the mild winter of 1888 and 1889, have had much to do with the present invasion. We might expect much aid from our frequent June rains, but I fear they were too late. Observation shows that the

lice are more than holding their own, so we may conclude that the warm rains are not greatly depleting their ranks.

Apple Tree Plant Louse—*Aphis Malt.*
Winged form, natural size, and also much magnified —Wingless form, much magnified. The short lines show the natural size.

Where the lice are very numerous, as they seem to be over a wide-spread area of our country, they must do great injury. Where ten or twelve are collected about a single kernel of wheat, as I have actually seen in the past few days, there is little hope for that kernel. I have counted 160 lice on a single head of wheat. It is hoping too much of the little parasitic flies to expect them to save the present crop. We can but expect much injury, especially where the lice are in such countless numbers as are now seen in many of our wheat fields of Indiana, Ohio, and Michigan.

The excellent specific against plant-louse ravages, the kerosene and soap mixture, cannot be used without much injury to the crop. To apply it might be like the jump from the frying pan to the fire. Again, the lice are so protected by the close cluster of the kernels that very likely the remedy would not be fully effective. I could not, therefore, recommend its application in this case. We are now making extensive and accurate experiments, so that at the time of a future raid we can speak with positiveness in this matter. We are aiming to find just what the damage is, just how many lice it requires on a head or kernel to blast it, and just how effective the remedy is, and how serious the damage of its application will be to the plants.

The name "green midge," which is going the rounds of the papers, is very incorrect, and should not be used. The Hessian fly and wheat midge are very different insects. These midges are two-winged flies, whose larvæ are footless maggots. They belong to the great two-winged fly order, Diptera, while these are plant lice or aphides, and belong to the order of bugs, or Hemiptera. Let all speak of this as the grain aphis, or plant louse, and not as the green midge, which is entirely wrong, as they are not always even green in color.

CONVENTION DIRECTORY.

1889.	*Time and Place of Meeting.*
Aug. 20.—	Northern Illinois, at Guilford, Ills. D. A. Fuller, Sec., Cherry Valley, Ills.
Aug. 31.—	Haldimand, at Fisherville, Ont. E. C. Campbell, Sec., Cayuga, Ont.
Sept. —.—	Maine, at Livermore Falls, Me. J. F. Fuller, Sec., Oxford, Me.
Sept. 5.—	Erie County, at Buffalo, N. Y. O. L. Hershiser, Cor. Sec., Big Tree Corner, N. Y.
Dec. 4, 6.—	International, at Brantford, Ont., Canada. R. F. Holtermann, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Good Prospect for Linden Honey.—J. S. McIntire, Maple Plain, Minn., on June 28, 1889, writes :

Bees in this locality are generally doing well. I had a prime swarm on June 10, and to-day they have the brood-chamber full of comb, and 48 sections nearly filled and capped. They had nothing but starters to work on in either chamber. White clover is good, and the prospect for linden never was better. I examined one tree to-day, and could not find any worms, as described on page 403. I visited my friend Albert Moses (5 miles from here) to-day; he has over 100 colonies, and his bees are just booming. The prospects now are very flattering for a big honey yield. I am located 20 miles west of Minneapolis.

Too Much Rain.—C. D. Robinson, West Groton, N. Y., on June. 17, 1889, says :

I put 44 colonies of bees into winter quarters, and in the spring I had 38, all in good condition ; but it has rained for the last three weeks almost every day, and still rains. I had 2 swarms on June 14. I hope that it will stop in time to secure the linden honey.

Linden Bloom—White Clover.—J. M. Young, Plattsmouth, Nebr., on on June 28, 1889, says :

Bees are doing their level best on the linden bloom throughout this section, and from morning until night. The white clover was extra good, and bloomed early this year, and has crowded the hives full of bees. We have already placed both new comb and new extracted honey on the market, and the prospects are excellent for a large crop. Bees are swarming all over the county, and the weather is fine.

Bees Doing First-Rate.—James Jaggard, Oak Hill, Ills., on July 1, 1889, says :

My bees are doing first-rate. The first swarms have stored 40 pounds to the hive, and they are swarming besides storing honey. I never knew the first swarms to swarm so much. My location is a first-rate one, having white clover in abundance. Basswood is beginning to bloom, and we have any quantity of it.

Extracting Honey.—I. N. Arnold, Richmond, Iowa, on June 28, 1889, writes :

We extracted 1,900 pounds of honey in eight hours, with a three-frame honey-extractor. I broke my four-frame extractor just when we were ready to commence.

Covered with Bloom.—W. V. King, Princeton, Mo., on June 24, 1889, says :

Bees are doing well. I never before saw such a large crop of white clover bloom as we have now, and have had for the last five weeks. The pastures are almost as white as if covered with snow. North Missouri may be put against the world for clover, timothy and blue-grass.

Bees in Fair Condition.—J. P. Montgomery, Cordona, Ind., on June 26, 1889, says :

I think that the AMERICAN BEE JOURNAL is one of the best bee-periodicals that can be found. I cannot do without it. My bees are in fair condition. I have 23 colonies, which I am working for comb honey.

A Great Honey-Flow.—S. J. Youngman, Lakeview, Mich., on July 2, 1889, says :

Bees emerged from the cold spell of one month ago in good condition, and have been gathering honey for three weeks, from the clovers very rapidly, and nothing could prevent excessive swarming, some colonies having swarmed three times. I will give an instance of the great honey-flow : A friend near me hived a swarm in a Langstroth hive, on 8 frames, with 28 sections, which were filled in seven days, and it *swarmed again !* I think that this great honey-flow will be followed with one equally as great from the basswood bloom, as I have personally inspected the trees, and find the buds very promising.

Misrepresentation about Comb Honey.—John Hager, Jr., Arabi, La., on July 2, 1889, writes:

I have sent you a copy of the New Orleans *Times-Democrat*, wherein is an article copied from the Philadelphia *Record*, headed thus: "Bees Can Take a Rest." If such should be a fact (which I can hardly believe), it will cause many bee-keepers to seek for new fields of employment; but as I do not believe that there is a word of truth in the article, I think that it is the duty of all bee-keepers to have the article in question pronounced a myth, and a base fabrication, which will cause honey to become a drug in the market, consequently it will take years to build it up again. Honey, as we are all well aware, is cheap enough now—how much lower it will fall in price, we cannot tell, if such articles like the one referred to are allowed to go by unheeded.

[We are making it hot for the Philadelphia *Record*, and all others who publish such fabrications. They ought to be sued for injuring a legitimate business, but alas, bee-keepers are afraid to furnish "the sinews of war." As proof of this, notice how poorly they support the Union.—ED.]

White Clover Plentiful.—Geo. Eidemiller, McGregor, Iowa, on June 27, 1889, writes:

Bees are doing nicely. I started with 24 colonies, spring count, and increased them to 38 colonies thus far by natural swarming. White clover is plentiful this year. My bees gathered honey freely in the forepart of May, but after that we had about three weeks of cold weather—cold north winds and frosty nights, which put the bees back, and so I fed them sugar-syrup to keep up their courage. I also sowed seven acres of Alsike clover, which the "old reliable" AMERICAN BEE JOURNAL induced me to do. It stands nicely.

Making up Lost Time.—J. W. Sanders, Le Grand, Iowa, on July 4, 1889, says:

I am too busy to write very much, but I will say that the bees in this section have been booming most of the time for the past three weeks. They seem to be trying to make up the lost time for May, when so many came very nearly starving out. It seemed odd to have to feed bees the first of June, to keep them from starving. Breeding was cut down a good deal by the cold weather. I will give a full report soon.

The Red, White, and Alsike Clovers.—A. J. & E. Hatfield, South Bend, Ind., on July 2, 1889, write:

The past week ended our very busy season of marketing strawberries, only to be followed by still greater hurry with raspberries and other fruits; and above all, with the care of nearly 200 colonies of bees that are doing exceedingly well on red, white and Alsike clovers, with a fine prospect of a good yield from basswood, to open in a few days. We never saw the first crop of red clover so full of seed as this season, and we attribute it to our Italian bees, or nearly so, as there are but few bumble-bees so early in the season.

Good Prospects for Basswood.—Wm. Lossing, Howard, Minn., on July 1, 1889, says:

Basswood never promised better; it will be out in a few days. I have good prospects for a heavy flow from basswood.

A Large Honey-Flow.—W. H. Shaner, Leechburg, Pa., on July 1, 1889, says:

We are in the midst of a great honey-flow, but the bees cannot work half of the time on account of the continued wet weather. The ground is white with white clover everywhere. Swarming is in order every day; I never saw the like—the bees build queen-cells when they cannot do anything else.

Heavy White Clover Bloom.—D. Millard, Mendon, Mich., on July 1, 1889, says:

We are now in the heighth of the heaviest white clover bloom that I have known in this section for five years. The weather has been rather too rainy, but it is all that could be asked to-day, and the bees are bringing in the honey with a joyful hum. The lindens do not promise quite as profuse a bloom as usual, but the leaves and buds are in a *very* healthy condition, and, with favorable weather, it cannot fail to furnish a good yield of honey.

The Season in Kansas.—Geo. W. Hanson, Chapman, Kans., on July 1, 1889, writes:

My 15 colonies of bees wintered nicely in the cellar, although I had 4 swarms as late as Sept. 7, which I fed. They commenced gathering pollen about March 15, from soft maple, from elm on March 21, cottonwood on the 28th, and from box-elder on April 7. They commenced gathering honey about April 13, from plum, peach, cherries and apple blossoms. I had 2 swarms as early as May 9, and 4 or 5 almost ready to swarm, when it set in cold and rainy—in fact there was nothing for them to gather honey from to keep them alive. There is no white clover that grows here, and from May 10 to June 15 they were left without anything to work on; then came the milk-weed. My bees are doing well now, and are getting ready to swarm. They are filling one-pound sections, and it looks as if I am going to have some honey to eat soon.

Honey and Beeswax Market.

CHICAGO.

HONEY.—The old crop is about exhausted, and not any new has been offered, especially is the foregoing applicable to the state of the comb honey market. Extracted, very little demand, at 7@8c.
BEESWAX.—25c. R. A. BURNETT,
June 10. 161 South Water St.

DETROIT.

HONEY.—No attractive honey in the market, and sales are slow at 12@15c.
BEESWAX.—24@25c.
June 22. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—Very nice new comb in 1-lb. sections is selling at 18c. Very little old honey of any kind is on the market, and no new extracted.
BEESWAX.—None in the market.
June 26. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Extracted, in barrels, 6½@6¾. Excellent demand for clear, bright in barrels. Dark, 5¾@6c.
BEESWAX.—Scarce at 23c. for prime.
May 22. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—Extracted in good demand. We quote: Fine orange-bloom at from 7@7½c.; off grades of Southern, 60@70c. per gallon.
BEESWAX.—Scarce, at 26½@27½c. for good.
HILDRETH BROS. & SEGELKEN,
June 6. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote: 1-pounds selling from 16@18c.; 2-lbs., 15@16c. Extracted, 8@9c. Sales very slow.
BEESWAX.—None on hand.
June 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb., Demand slow for table use, and fair from manufacturers. Several lots of new comb have arrived, but quality being off, it finds slow sale at 12@14c.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
June 22 C. F. MUTH & SON, Freeman & Central Av.

Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

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ALFRED H. NEWMAN,
BUSINESS MANAGER.

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Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

Lovers of the Beautiful in art will learn with pleasure of the treat that is being prepared for them by the management of the Minneapolis Industrial Exposition, which re-opens on Aug. 21 for a period of 34 days. Art Director Smith has put forth every effort to make this season's art display the finest ever placed on exhibition in the West. In this he has been well seconded by the artists in the East, who have gladly furnished the choicest treasures of their studios for exhibition in the handsome art galleries of the Minneapolis, Minn., Exposition. Taken in connection with the best of other features provided, this season's Exposition will exceed in interest those of previous years.

New Posters for the AMERICAN BEE JOURNAL, printed in two colors, have just been printed, and will be sent free to all who can use them. They are very handsome, and will "set off" an exhibit at Fairs. It will tell Bee-Keepers how to subscribe, for "Subscriptions Received Here" is quite prominent at the bottom.

We will also send sample copies of the BEE JOURNAL, for use at Fairs, if notified a week or ten days in advance where to send them.

☞ The Northern Illinois Bee-Keepers' Association will hold its next meeting on Aug. 20, 1889, at R. Marsh's, in Guilford Township, 4 miles northeast of Rockford, Ills. D. A. FULLER, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec. Brantford, Ont., Canada.

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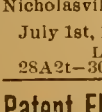

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A Mystery Explained.

CHICAGO, ILLS.—Mr. Alley: Do you keep Black and Italian bees in the same apiary? If so, how do you keep the Italians pure?
R. G. COLBURN.

REPLY:—Yes; we keep Black, Carniolan and Italian bees in the same apiary. The Italians are kept pure by placing the Alley Drone-and-Queen Trap on all hives but one containing a select breeding queen. We do not even allow the drones to fly from all our pure Italian colonies. No helter-skelter mating of queens is permitted in our apiary. No dealer can send out *all* purely-mated queens who does allow it even in an apiary where all the colonies are supposed to be pure Italians. We are credited with sending out the best queens of any dealer, and can only keep up that reputation by using the Drone-and-Queen trap.

Try one of our $3 Select Tested Italian queens. Select warranted queens, $1.25; warranted queens, $1.00; tested, $1.50. The *American Apiculturist* one year and select queen, $1.50. Send for sample copy.
Address, **HENRY ALLEY,**
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The Hive and Honey-Bee, and Dadant's Foundation. See advertisement in another column.

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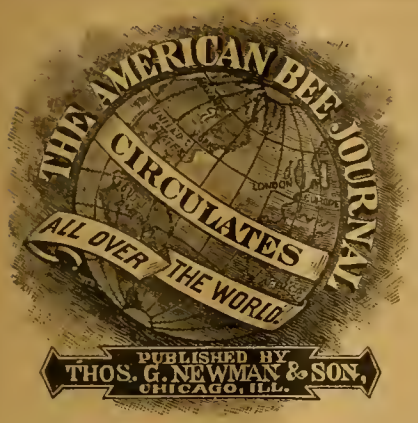


THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. July 20, 1889. No. 29.

EDITORIAL BUZZINGS.

Some murmur when their sky is clear,
And wholly bright to view;
If one small speck of dark appear
In their great heaven of blue.

Honey has been gathered in abundance during the past few weeks. There is every prospect now for a large crop of honey this year.

Again We Caution the small honey producers not to be in a hurry to put their honey on the market, unless they get good prices for it.

The Canadian honey crop promises to be a satisfactory one. Swarming has been quite profuse, and the lindens and white clover blossoms are abundant.

The Australasian Bee Journal has added a Poultry Department to its paper, following the lead of the *Canadian Bee Journal* and the *Bee-Keepers' Advance*.

Carniolan Bees are rapidly coming into favor. Among all those who have tried them, we hear of none who are not pleased with their many points of excellence.

Capt. Evan P. Howell, of the Atlanta *Constitution*, who is a capital story teller, illustrated the persistent industry of the Chattanoogans by an anecdote of a man in Georgia, who kept bees, and, not satisfied with their proverbial industry, actually attempted to cross them with lightning bugs, in order to secure a continuation of honey gathering through the night.—*Boston Herald.*

Father Langstroth, as we stated last week, should not be forgotten in these days of plenty. We hope that all who subscribed to his annuity last year, will be prompt in sending the same this year. We sent to him our subscription a few days ago, and here is the acknowledgement of it from his daughter:

DAYTON, O., July 9, 1889.

THOS. G. NEWMAN & SON—*Kind Friends:*—I write in behalf of my father, to thank you for the received expression of your interest in, and friendship for him. Father has been very feeble for the past four months—a partial return of his old "head trouble," accompanied by unusual prostration. I often feel that it may be he is slipping away from us, but still hope for his restoration. He desires me to express to you his "love, friendship and grateful thanks for the enclosure ($25.00) you sent him," which I may add was a real "God-send." Very kindly yours,

ANNA L. COWAN.

No Nuisance.—Mr. W. H. Fletcher, of Sauk Rapids, Minn., wrote us as follows on July 5:

It has occurred to me that a full history of the Arkadelphia lawsuit, in pamphlet form, would be an interesting, if not valuable addition to the bee-literature of the day. Should you publish such a pamphlet, you may put me down as a subscriber for several copies.

The "Union" has published such a pamphlet. Any one interested can have it by sending a stamp to pay postage. We hope thousands of bee-keepers will now so far appreciate the efforts of the Union in their behalf, as to send a dollar to the Manager and become members. A dollar will pay for all dues till January, 1890.

The Original Home of the honey-bee is a matter of considerable conjecture. An exchange says that "C. J. Robinson thinks that bees had their original home in Egypt, and notes that with the Egyptians the picture of a queen-bee was an emblem of royalty. In the Egyptian picture-writing, the picture of a bee represented Lower Egypt or the Delta; and probably implies that the Delta was the sovereign mother country of the rest of the Nile valley."

The Prospect is a magnificent one for bee-keepers. Sugar is dear (made so by a sugar trust); small fruits are scarce, and not well developed; but the honey crop will be a very large one. Prices of honey ought to be good, and the demand lively.

Our Friend, A. I. Root, editor of *Gleanings*, gave us a short call on Friday of last week. He was on his way to see the honey-flow in the great linden belt in Wisconsin, and wanted us to accompany him, a thing we should have been delighted to do, but a "rush" of business at this time made it impossible for us to leave home. The time was short, but we spent it very pleasantly until separated by the departing train at the depot.

The Management of the Apiary is the title of a new work on apiculture, by Mr. Ed. Bertrand, of Nyon, Switzerland. The book has 178 pages, and is arranged so as to give a detailed management for each month in the year. It describes three types of hives (Dadant, De Layens and Jeker), and has 80 illustrations. Of course it is printed in French, as that is the language used in Western Switzerland, where our friend Bertrand lives.

We remember with a very great deal of pleasure our visit to M. Bertrand's very beautiful residence, and also to his apiaries. He is an enthusiastic apiarist, and his book is written in his happiest vein; with details so plain that any one can thoroughly understand it, and will in all probability become "enthused" like the author. The large folding-sheet illustrations at the end, are marvels of information concerning each of the three types of hives named, and give full details for their construction. It is published at Geneva, Brussels and Paris.

Shipping Nuclei in Switzerland is thus described by M. Vogl, of San Anselmo, Calif., in the *Western Apiarian* for July:

In Switzerland (my old home), I got my Italian nuclei from the Italian side of the Alps (Canto Ticino), each separately packed in a little box of ⅛ and ¼ inch stuff 6x9x9 inches, with four little combs (no frames) filled in, separated by little sticks, fastened by the bees to the sides; no wire-cloth is on the top, and instead of costly wire-cloth, it has only a few slits in the top and sides, sawed into the wood with a key-hole saw, each box corded with a strong string.

Bees settled in the top of a house near Atlanta, Ga., eight years ago, and the other day, when the gable end was removed, the entire roof was found to be filled with honey. So says an exchange.

A Busy Time with Busy Bees.—Fred Lincoln had six swarms come out in less than two hours, five of them alighting in the same place, and following each other in such rapid succession that he could hardly clear the tree before another swarm was ready to take the place.—*Brandon, Vt., Union.*

A Generous Physician.—Mrs. Blinkers—Well, did you go to the doctor to see about that bee-sting on little Johnny?

Mr. Blinkers—Yes. He said we should put mud on it. He charged me $2 for the prescription, but he gave me the mud for nothing.—*New York Weekly.*

Prang's National Flower is the title of a beautiful pamphlet which contains two colored plates of the two most popular candidates for selection as the National Flower of America. It also has two poems, and a postal card addressed to Messrs. L. Prang & Co., Boston, Mass., with a vote to be filled up for the selection of a National flower. The pamphlet costs 25 cents, and can be obtained at this office.

GLEANS OF NEWS.

Circulate Truths about Honey.—Rev. J. D. Gehring, Lawrence, Kans., on July 5, 1889, writes thus:

Almost every day I hear people mention as a reason for not eating honey that it makes them sick. Explaining the difference between white section comb honey and honey taken from the brood-nest in the old way, does but little good. Like the "Wiley lie," the old story sticks.

Only a few days ago a young man, whose brother is a bee-keeper a few miles out of town, assured my wife that he knew that comb homb was made artificially. He was a traveling salesman for a Chicago firm where it was made by the ton, he said.

I was not at home at the time, or I should have made him give me more definite particulars. The ignorance of the general public on the subject of bees and honey is simply astounding. We bee-keepers should make a special effort to remove this ignorance, and thus increase the consumption of our product. Your leaflet, "Why Eat Honey," may be a good A B C book for the infant class. Bee-keepers ought to scatter it by the thousand.

It is only another phase of the Wiley *lie*, which has gained a world-wide circulation. That falsehood contained all the essential points for rapid propagation. It was readable, spicy, and *a falsehood!* With this trinity of requisites it has been carried at lightning speed, and varied to suit every land.

The only way bee-keepers can hope to gain a hearing is by scattering the honey Leaflets and Pamphlets, and thus inform all they can reach, about the value and uses of honey—and that comb honey is *not* adulterated.

June was a magnificent honey month in England. The *Bee-Keepers' Record* thus describes it in its issue for July:

A genuine bee-month has been that of June, 1889; and very fully indeed has the "hopeful prospect" pictured in our last issue been verified; indeed, for some years past we do not remember a time when greater progress was made by bees than in the last three weeks.

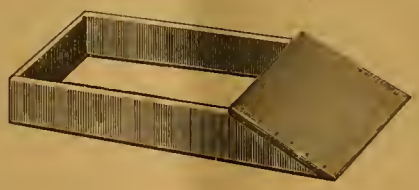
A swarm of our own, hived on the evening of Saturday, the 8th inst., on ten standard frames of foundation, was examined on the following Saturday, after only seven days' work, and it was just a sight to see. Brood and sealed honey in every frame, and "room wanted" at once! A shallow surplus chamber with ready-built combs was then given to it, and three days later these had quite a good show of honey in them.

From Scotland, and from the North of Ireland, too, correspondents write of a "land flowing with honey;" and from other parts of the kingdom similar good accounts are given. In some apiaries the bees have taken a swarming fever; one writer who owns 60 or 70 colonies declaring that the bees have gone "swarming mad," not that their owner will be likely to follow suit, and go mad too, in consequence, for swarms should find a ready sale, yielding a fair profit with little trouble.

It would appear, too, as if even the comparative scarcity of bees this year will be a sort of blessing in disguise to bee-keepers, for if the weather continues as favorable in July, and if all the colonies alive last autumn had been living now, honey would probably have been a complete drug in the market. As it is, those who are fortunate enough to possess good colonies will be likely to secure a big harvest, while the price of honey will be maintained at a fair figure, owing to the smaller number of sellers this year.

As we write, mid-June has only just passed away, yet in many districts the hay-crops are already cut and gathered in, so that we may expect a luxuriant and early bloom on second-crop clover, yielding honey for some weeks to come.

Here is an engraving which illustrates the Stand and Alighting-Board as used by Mr. F. Greiner, of Naples, N. Y. He says:



"It does away with all detachable alighting-boards. Further comment is unnecessary, as the engraving explains itself and its use."

Bees and Honey at the St. Joseph, Mo., Exposition (Sept. 3 to Oct. 5) are subject to these rules:

Exhibitors will not be allowed to remove honey from their exhibit during the Exposition, but may sell from a reserved supply, for which no charge will be made.

Exhibitors who sell honey must enclose it securely in paper cartons.

Honey exhibited or sold must be this season's crop, and all honey must be the produce of the exhibitor.

Colonies of bees must be exhibited so as to be readily seen.

All exhibits must be in place on opening day of the Exposition. The exhibit must be creditable.

A breach of these rules will forfeit all premiums that may be awarded to the offending party.

And the following are the premiums offered:

	First.	Second.
Display of comb honey, largest and most attractive	$50 00	$25 00
Display of extracted honey, largest and most attractive	50 00	25 00
Display of bees and queens, largest and most attractive	50 00	25 00
Largest and most complete line of apicultural implements exhibited by manufacturer, quality of workmanship to be considered	50 00	25 00

Heat.—S. R. Norton, of Lamont, Ills., asks the following questions on July 8, 1889:

What is the trouble with a swarm of bees I have? On July 5 they swarmed about 10 o'clock. I put them into a Langstroth hive, on 6 or 8 frames of foundation, and at 2 o'clock they left the new hive. I succeeded in putting them in again. I had scarcely hived them, when they left the second time. Thinking something might be offensive to them in the hive, I fixed a box and put in the frames of foundation and some empty ones. I put the swarm in this box, but about 4:30 p.m. they left this, and I again made them settle. I left them on the branch until sundown, when I put them into this box again.

The next day, between 9 and 10 a.m., they left the box, but I made them settle, and, as soon as I had them into the box, I closed the entrance with a wire-screen. I took a frame of brood from the parent hive, and gave them also a saucer of water. On Sunday I left the entrance closed until 5 p.m. They seem to be working all right now. This case has puzzled all the local bee-keepers. I hope that you will give me some explanation of this in the BEE JOURNAL.

At our request, Dr. C. C. Miller gives a reply to the above question. He says: "Without having fuller particulars it is not safe to give a positive answer, but it is quite probable that the trouble was heat. At any rate, bees hived in a box or hive, standing in the hot sun, would get just as these bees did. A swarm, when hived, should be set in a shady place, or else the hive should be in some way shaded."

A Bee-Parasite.—The Department of Agriculture publishes, in "Insect Life," the following account of an insect that is said to be causing great annoyance to Alabama bee-keepers:

In August, 1887, Dr. W. B. Rohmer, of Grand Bay, Mobile county, Ala., wrote us concerning an insect that had caused much trouble to bee-keepers in this vicinity, accompanying his communication with specimens of the imago, and also of the eggs which he had observed the insect in the act of depositing.

Noticing the insects alighting in the vicinity of his hives, his attention had been drawn to them, and he found that they introduced their ovipositors beneath the entrance blocks, or in the cracks between the hives and the bottom-boards, and remained in this position several minutes, perfectly motionless, repeating the operation a number of times.

Upon investigation a large number of eggs were always found deposited. When the hives were removed for the purpose of cleaning them, worms in all stages of growth were found upon the floors, especially in recently transferred hives, where there had been a large accumulation of *debris* incident to cleaning away and sealing comb to the frames. In this *debris* of wax and foreign material, all sizes occurred, from the tiny worm just hatched, to the large one snugly ensconced in its web.

Where the hives were clean, and there was nothing in the bottom for the worms to subsist upon, the newly-hatched larvæ made their way up, unobserved, to the combs at the bottom of the frames, eating and growing as they advanced.

The perfect insects were also seen laying their eggs in the cracks in the sides of old hives where the boards were nailed together, and for the reason that they have so many points of introduction these hives are more infested.

The specimens sent proved to be a true Dipteron, Hermetia mucens, which belongs to the Stratiomydiæ. Nothing similar to these habits has ever been published, so far as we are aware. In fact most of the species of this family, except some which are aquatic in their early stages, live underground, and their life history is not thoroughly understood.

This, therefore, is a matter of not only considerable scientific interest, but also much economic importance from the standpoint of the bee-keeper. That the Hermetia occurred in such locations, and laid the eggs mentioned, there can be no doubt; but that Dr. Kohmer has confused the larvæ of Galleria or some other Guest-moth with the larvæ of the fly, seems probable.

We Have Received a 12-page Poultry Circular from Mrs. W. P. Carpenter, of Harmony, N. Y.

"TO THE HILLS."

The following was written in London, and published in the *People* of Sunday, June 9, and affords one exhibition of the intense feeling excited in every section of the civilized world by the great disaster at Johnstown, Pa., the incidents of which, true or imaginary, have been set to music on both sides of the Atlantic:

"To the hills! to the hills! It's coming!"
The cry rings sharp and dread,
As a horseman, racing madly,
Adown the glenside sped.
"To the hills!—oh, God, why wait ye?"
He shouts as they doubting stood;
"'Tis the lake—it comes—oh, believe me!"
"To the hills, for your lives!—the flood!"

The crags with a startling echo,
Catch up that awful cry;
The dirge of the unknown hero,
Who thunders reckless by.
"To the hills! to the hills! God help them!
They heed me not—they wait.
Hark! now they mark their peril,
To the hills—ah, me—too late."

The warning cry grows fainter,
In the swell of a muttered roar
That follows the horse and its rider—
That sweeps all things before.
"To the hills!" ten thousand voices
Now shriek in wild despair,
As horror heaped on horror
Fills the vale and rends the air.

"To the hills!" 'Tis the voice of the rider,
Now sunk in a feeble wail,
'Midst the noise of the seething waters,
That tumble and leap o'er his trail.
"To the hills! to the hills! Lord help me!"
Now the cry of a drowning man,
As the billows hurry him onward,
Overleap the narrowing span.

Borne aloft is the corpse of the hero,
On the crest of a mountainous wave,
Tossed hither and thither—ever downward,
'Midst that ghastly wreck to his grave.
There hidden from those who would honor him,
His name ever lost to fame,
He rests with the simple record;—
"Here a Johnstown man died game."

—*Farquhar E. Palliser.*

Doolittle's Book on Queen-Rearing is not only of great interest to queen-breeders, but it is also of vital importance to every bee-keeper, even if he may have but two or three colonies of bees. It contains much that has never before been in print, and is as interesting as a novel. This is what Mr. A. I. Root says of it in the last number of *Gleanings*:

Friend Doolittle's book is as interesting, at least to me, as anything I have ever read in regard to bees, hardly excepting Father Langstroth's book, when I first got hold of it.

One reason is, that it is right along on a line where I worked for months, several years ago. I experimented by placing wire cloth between the upper and lower stories. Perforated zinc was not then known—at least I had not at my command anything to permit the worker-bees to go above and hold back the drones and queen; therefore my experiments amounted to but little more than having queens reared in nuclei above, in strong colonies. These nuclei were either shut off entirely by wire-cloth, or else these drones and queen had free access to the upper story. By having upper entrances, I succeeded in getting queen-cells built and queens fertilized to some extent; but it did not pay, and I was continually annoyed by being obliged to disturb the nucleus every time I wished to get into the lower story of the colony.

In Chapter VIII, we are told how to get queens fertilized in the same hive where there is a laying queen. These two chapters are certainly worth the price of the book to any bee-keeper. In fact, it seems to me that every man, woman, or child at all interested in bees, ought to read Friend Doolittle's book. *The accounts of his discoveries read like a book of fiction.* In fact, it sounds to me in some parts like the Arabian Nights; and yet it is absolutely true, every word of it. You can verify it yourself with your own bees. I know it, because I have experimented all along in the same line.

Those who are unfamiliar with this intricate, complicated, and wonderful matter of securing queens from an egg that would, in the usual course of events, have produced a worker-bee, will become familiar with the matter by reading Friend Doolittle's story. The whole of it seems to have been written in Friend Doolittle's happiest vein. I should judge that he had given the book great care and pains; and I believe that is the way he usually does every thing.

In order to correct some false impressions, Mr. Doolittle writes thus:

I see that some think that my book was written for queen-breeders, who follow the rearing of queens as a business; but this is a mistake. The book was written for the sole purpose of benefiting *all* in the bee-business, from the man who counts his colonies by the thousand, down to the amateur who has but two or three.

All want queens for any case of emergency which may come up, or for the purpose of superseding those which are past their usefulness, or not of the "blood" which they wish, or to give to the parent colony after the old queen has gone out with the swarm, so that second swarming may be prevented.

How handy it is, then, to rear such queens in an upper story, get them fertilized in the same by slipping in a perforated zinc partition so as to enclose a comb or two on each end of the hive, from which the queen may issue to meet the drones, and, after returning, be kept laying here till she is wanted for use, thereby aiding the queen below with brood all the time she is being held before she is wanted for use.

The possibilities which are before us along the line which this perforated metal may bring us, have only begun to dawn upon us. Queens can be reared and fertilized by the thousands in any apiary, and yet no colony be kept queenless for a single moment, nor any nuclei made, but all work in the apiary be going on just the same as if no queens were being reared. The advent of the perforted metal is likely to mark an epoch in our history, fully equal to that of the honey-extractor or the movable-comb hive.

The book costs one dollar, or will be clubbed with the AMERICAN BEE JOURNAL for a year, and both sent postpaid for $1.75.

Here is what the *Bee-Keepers' Record*, published in England, says of the book:

We have read Mr. Doolittle's book with much pleasure, not that we can—for the present at least—hope to profit so largely as we could wish by mastering all the very interesting methods of queen-rearing, detailed with the utmost minuteness by the author. To those, however, who can enjoy more close companionship with their bees than other occupations permit us to do, the work under notice will be a most enjoyable "find," even if it be but to read of the many wonderful things in queen-rearing accomplished by Mr. Doolittle.

To say that queen-rearing is a science does not go far enough; in his hands it is, in a great measure, a *mechanical* science, for he scoops up queen-larvæ, royal jelly, etc., from queen-cells reared by the bees, distributes both larvæ and jelly just as it suits his purpose, and rears queens by the hundred for a season extending over many months of each year.

Imagine the queen-breeder gravely setting to work with his wax dish, spirit lamp and *tools*, moulding queen-cups (or cells), arranging a dozen or more of these in line on a "stick," supplying each "cup" with "royal jelly" and a "little larva;" fixing the "stick" on a frame of comb, and setting it in a hive to be completed by the bees, the queens being hatched, and actually fertilized, while all this goes on in a fully-stocked hive with a laying queen; the operator meanwhile rearing as many as 100 queens in one colony without interrupting the work of the colony for an hour.

The business of queen-rearing is, in America, more extensively practiced than here; apiarists proper, or persons who cultivate bees as a sole source of income, being quite numerous as compared with this country! We have but little notion of the number of queens required for the trade demands of a regular queen-breeder like Mr. Doolittle. To meet these requirements, the skill of the breeder is taxed to the utmost; and in the book before us the details of each operation is described with such careful accuracy, and in such simple, homely language, that any one with time and equal skill may work on the same lines as the author, and hope for equally successful results. We have not space for saying as much as we could wish on Mr. Doolittle's work, but can promise any one interested in the subject a full dollar's-worth for their money, should they invest that sum in "Doolittle on Queen Rearing."

A LITTLE FORESIGHT.

Why It Is of More Use Than An Unlimited Quantity of Afterthought.

A little foresight is of more value than much aftersight, says the Sunday-School Times. Foresight is the planner, aftersight is the critic, of our deeds. What painful scenes, embarrassments, regrets, disappointments, self-accusations, the habit of looking ahead and planning to meet and to arrange the future will avoid? Time and money spent in designing a building perfectly, in definitely predetermining principles and rules of action, and marking off limits before embarking in any new project, in mapping out work, in arranging engagements, in avoiding conflicts of duty and the impossible demand to be in two places at one time, are well spent. But the forethought is more difficult than the afterthought. The one requires intense application to systematic consideration and search of the field of the possible; the other suggests itself instantly and naturally. Any body can see that the door is in the wrong place after the house is built, or can say that the speech was a mistake after it had been delivered and its effect noticed. It is easier to criticise well than to construct well; but it is more useful to construct a plan perfectly beforehand, than to criticise it afterwards.

Convention Notices.

☞ The Northern Illinois Bee-Keepers' Association will hold its next meeting on Aug. 20, 1889, at R. Marsh's, in Guilford Township, 4 miles northeast of Rockford, Ills. D. A. FULLER, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec. Brantford, Ont., Canada.

A JULY DAY.

With song of birds and hum of bees,
And ordorous breath of swinging flowers,
With fluttering herbs and swaying trees,
Begin the early morning hours.

The warm tide of the southern air
Swims round, with gentle rise and fall,
And, burning through the golden glare,
The sun looks broadly over all.

So fair and fresh the landscape stands,
So vital, so beyond decay,
It looks as though God's shaping hands
Had just been raised and drawn away.

The holy baptism of the rain
Yet lingers like a special grace;
For I can see an aureole plain
About the world's transfigured face.

—*George Henry Boker.*

QUERIES and REPLIES.

Use of Sulphur Before Shipping Comb Honey.

Written for the American Bee Journal

Query 643.—Is it necessary, before shipping comb honey, to always subject it to the fumes of sulphur, for the purpose of killing the bee-moth larvæ?—W. R. H.

No. It never is, with me.—R. L. TAYLOR.

In some localities, where the bee-moth is troublesome, it is best to do so. We do not do it here.—H. D. CUTTING.

No; but it is the safest way.—A. J. COOK.

Yes, if before September. Not after that date.—DADANT & SON.

No; excepting where it is of long standing.—WILL M. BARNUM.

Perhaps not always necessary, but usually a wise precaution.—MRS. L. HARRISON.

I think it is advisable, but not generally practiced.—P. L. VIALLON.

Not if properly cared for, when removed from the hive.—A. B. MASON.

I do not. If it is the practice of honey-producers generally, I shall also be glad to know it.—EUGENE SECOR.

Not if it is cold weather. It might be uecessary in warm weather.—J. M. HAMBAUGH.

It depends upon circumstances. If the shipment is made early in the season it would be best to do so.—J. P. H. BROWN.

If very white, with no pollen in it, it may not be necessary, but is always safe.—C. C. MILLER.

No, sir; I consider such an arrangement all wrong. Do not keep bees in such a manner as to have your surplus honey infested with the eggs of the moth.—JAMES HEDDON.

It is safer to fumigate comb honey before sending it, when it may be kept on hand for sometime. I saw moth-worms in comb-honey in a store here in Ipava, that had not been there very long.—MAHALA B. CHADDOCK.

It is necessary to know that the worms are all killed, and that no eggs remain, else trouble will ensue, as the worms eat very rapidly after they once begin.—J. E. POND.

I think not. I have never used brimstone for that purpose, and have never seen a worm in comb honey. With Italian or with Syrian bees, and careful handling, I think the use of sulphur is entirely superfluous.—M. MAHIN.

Yes, sir. I have seen honey in the market in such bad condition on account of the moth, that it was almost worthless, and a disgrace to the bee-keeper who produced it.—C. H. DIBBERN.

No; but care must be taken to select out all combs having pollen in them. The moth-larvæ cannot live and develop on wax alone, but will thrive on old brood-combs, or new combs containing bee-bread.—G. L. TINKER.

Not with me, if the honey has been properly managed for a week or ten days after it has been removed from the hives, and before it is shipped. I prefer not to *crate* my honey till I have kept it for about ten days, so as to see if any moth-worms are likely to hatch on the honey.—G. W. DEMAREE.

If the comb honey has been carefully secured free from pollen, *no*. Honey secured in the brood-nest, or stored at the sides of the brood-nest, or stored by queenless colonies will have pollen-cells scattered throughout the product most certainly, and will as certainly be wormy honey. Have your honey stored above a colony in a normal condition, with a queen-excluder, and you will have no pollen, and therefore no worms.—J. M. SHUCK.

I do not sulphur my honey unless I see the signs of the bee-moth larvæ upon it. Unless they commence operations within three weeks after it is taken from the hive, they never will, if your honey is kept in a warm room, as it should be.—G. M. DOOLITTLE.

The safest way is to keep the honey in a warm room at home about twenty days after removing it from the hive. Then it is not necessary to sulphur it, unless the moths have already commenced to work on it. The condition of some honey on the market shows slovenly work, and it should have been sulphured before shipping it.—THE EDITOR.

CORRESPONDENCE.

BEES AND COLORS.

The Relation of Bees to the Floral Kingdom.

Written for the American Bee Journal

BY J. F. LATHAM.

In contemplating the relationship of bees and flowers, a comprehensive view of the subject may be attained by adopting, as a basis for thought, the fact that, in every element of nature contributing to the development of organic life, there exists, to a certain extent, an affinity, or a co-operation of affinities influencing, in a major or minor degree, the collective welfare of all. Among the most potent agencies contributing to the growth of vegetation, especially the melliferous flora, are the influences of light and warmth.

As a large number of the nectar-yielding flowers are borne by plants that propagate from the seed, the claims of relationship in the economy of bees and flowers are well established. The bee is dependent upon the flower for its sustenance, and the flower receives a generous return in the distribution of its fecundating element of the bee, when, in eventual instances, the general methods of propagation are rendered abortive.

But without a desire to criticise, or an attempt to controvert the teachings of those who occupy the position of monitors in the schools of the natural sciences, it seems that, in detailing the processes of nature as revealed to the eye, due credence must be allowed for elasticity. To say that the melliferous flora secretes its sweets for a specific purpose, unconnected with the constituent principles of its organic growth—*i. e.*, for the sole purpose of supporting tribes of parasitic insects to perform the operations, and accomplish the designs of its existence—does not accord with the broad outlines of Nature's plan.

That the forms of many flowers are such that the visitations of insects, when searching for nectar or pollen, aid materially in enhancing their productiveness, is beyond doubt; but to assert that such flowers would fail to fulfill the design of their existence; and that the plant species which they represent would become extinct without the ministrations of insects, appears too broad, in a technical aspect, to merit the claim of infallibility.

In the early ages of the earth, vegetation must have existed that accomplished the various stages of growth, and perpetuated its kind without in-

sect aid ; and although flowerless, its organic germs were no less a reality than at a more recent date, when the requirements of its existence developed efflorescence ; and a less cloudy atmosphere allowed a more favorable potency to the fructifying influence of the sun's rays.

Among the species of marine plants are those which grow a long distance from the bottom of the sea, to reach the surface of their watery bed, and embrace the stimulating elements of an open firmament ; some to bud, and bloom, and yield seed after their kind in congenial conditions ; and others, to absorb the exhilaration of light and warmth only. I have "paced off" sections of the "kelp" stalk 40 feet in length, that had been rent from the growing plant, and driven on shore by storms at sea.

The fresh-water lily will grow 10 feet to reach the surface ; and will not unfold its snowy petals until it can receive the full force of unrestricted light. On land, many species of flowering plants that open their buds to the rising Sun, close them on his decline.

The sun-flower—helianthus—unfolds its disk to the East, in the morning, follows the Sun in his diurnal course, and closes it again on his disappearance beneath the Western horizon ; turns again to the East during the night, to again repeat the process of each preceding day, until the requirements of light and wamth, as stimulants to the development of its reproductive functions, are no longer needful.

The dandelion, and many other flowering plants less conspicuous than the sun-flower, fold their petals during the night, and during stormy weather, and even during very dark, cloudy days.

That any flower which fails to display its bloom at unfavorable times, should be conscious that its insect friends are prevented in their ministrations by inclement weather, does not seem probable. Many showy flowers which do not secrete nectar; and many others which do, propagate from bulbs or root-seeds. I have been shown the root of the red clover, with what were described to be seeds existing in openings along its tap-root. If these are true seeds, should the plant "run out," its extinction could hardly be attributed to the absence of insect aid in distributing the pollen from its bloom.

The bloom of the potato vine is very profuse, and yields pollen abundantly, but it is never visited by bees, to my knowledge. The potato propagates from the seed and tuber, and, as is well known, is one of the most prolific food-producing plants of the vegetable world.

The common sheep-laurel is very conspicuous in its crimson bloom, in the old hill-pastures of New England, but being very poisonous, it is not visited by the honey-bee. I am not informed whether the laurel of the North yields nectar, but I have watched the bees while at work on inconspicuous flowers near by its flaming clumps, and have never seen them give its showy inducements any attention.

Bees will search out a single flower of the wild raspberry when isolated from its kindred bloom, and hidden among other shrubbery so that its approximation to the querist might be discovered only by the hum of the insects. This I have noticed many times in connection with the raspberry and a late-blooming aster, with a very small purple flower, which grows on the margin of ponds, among the dense foliage of the sweet-bay. After a severe frost has killed all flowering vegetation in the open lands, this reclusive gem, protected by the shrubbery in which it delights to nestle, will retain its vitality, and secrete nectar, and produce pollen until cut off by the more severe cold of approaching winter.

Another very inconspicuous flower which occupies the attention of the honey-bee, is found on the witch-hazel. The first time my attention was called to the witch-hazel as a honey-producer, happened while passing through a clump of bushes, and hearing the hum of bees at work. Casually, I could discern no bloom, but after a more careful search I discovered the flowers with the bees at work on them, gathering pollen, surely, and nectar apparently.

Many other instances might be enumerated that would serve to contract the showy-inducement theory, but it seems that a strictly practical observation will convince the most skeptical, that the odor of the flower, and the habitual requirements of nectar-loving insects, are realities in the relations of bees and flowers that need no modifying. Bright, or variegated flowers, are no more attractive to the hive-bee that those of a plainer hue. The best nectar-producing trees and plants here, taking them in their seasons, are the sugar maple, raspberry, locust, white clover, aster, and—what it is hoped will be our "National flower"—the golden-rod !

In the apple bloom, on many trees, a pale pink color predominates, while others are tinged with pink, but the major part are destitute of color. Notwithstanding the extent and brilliancy of the fruit-bloom, my bees will give the more modest bloom of the maple the preference, when both kinds of trees are in blossom at the same time, and yielding nectar quite plentifully.

In an objective capacity color may be useful to bees when foraging, but they often wing their way from one flower to another, giving to each a casual glance, without stopping to apply the ligular to the chalice.

Here, again, it may be observed, if care is exercised, that plain uni-colored petals are as forcible in their attractiveness as gaudy multi-colored petals. Bloom, in the vegetable species, is but an indication of the sexual impulse inherent in the object it represents ; expressive of what may contribute to the perpetuation of its kind in the sphere which it specially fills in the economy of Nature ; as when expressive of the same impulse manifested through the medium of the animal organism ; and it seems next to an absolute certainty that, if the nectar-yielding trees, shrubs and plants, in their floral display were prompted by no other cause than that of inducing insects to fructify their seed germs, they would not bloom at all. On the other hand, it is very certain that, if the hive-bee was actuated by no other motive than that of conveying pollen from flower to flower, it would obtain its food from some other source.

The limits of human knowledge are, uncertainty ; but when we take into consideration the facts that the animal is the offspring of the vegetable ; the vegetable an out-crop of the mineral, and that the vegetable absorbs from the mineral the ingredients, which, by the rays of light, are modified, and develop in changing hues of mirrored beauty ; the teachings that the melliferous flora adorns itself in those pleasing colors, as an allurement to induce insects to sip the nectar from its cup, and gather the pollen from its stamens ; when that same nectar and pollen are the only food accessible to animals organically constituted to obtain their sustenance from the flower ; and which can have no other inducement to prompt them to visit the flower—do not accord with the evolving disclosures that may be deduced from cause and effect, in which there is no accidentalism.

Again, when we take into consideration the fact that the elements in the dust-grains upon which we tread are but representative of the elements which comprise the make-up of the blazing suns of planetary systems in the boundless realms of space, where suns are but as drops of water in the ocean, the shadowy assertion of accidental development will meet with a frail support ; for, in every pulsation of Nature, there is revealed to the senses,

evidence, realistic of a guiding and modifying agency; and, to repeat, the gratifying odors emanating from the nectaries, and the pleasing colors displayed in the petals of the floral world, are manifestations of an Omnipotent Director's handi-work.

West Cumberland, Maine.

LIVELY WORK.

Bees are Booming, and Apiarists are Kept Busy.

Written for the American Bee Journal

BY E. W. COUNCILMAN.

Things have changed here in this section of the country since my letter was written on page 412, in regard to the prospects for a honey crop. Then it was gloomy, cold, sour, rainy weather, bees out of honey, and only occasionally the sun would shine out just long enough for the poor little things to skip out and get enough to just keep "soul and body" together. In quite a few instances bees actually starved to death.

But now, how changed! Bees are just booming; plenty of sunshine, flowers full of honey, bees swarming so rapidly that one has to hustle to get them hived before another is out, ready for its new home. From 44 colonies I have already had 30 new swarms, and I do not think that they are half through swarming yet.

White clover is plentiful, and is yielding abundantly. Basswood seemingly was never in better condition. The abundant rains have filled the ground with water, so that the linden will have no excuse for not "giving down" an abundance of nectar this year.

Bees have stored quite a little surplus from white daisies—at least the combs in the sections are yellow, and the honey slightly bitter; I have seen the bees working on the white daisies, and come in with their little bodies covered with yellow pollen dust. Some of my neighbors have already got new honey in the groceries for sale.

I am cutting out the queen-cells and putting the bees back. Is this the correct way to do? Is there more money in the surplus than in the new swarms?

Newark Valley, N. Y., June 30.

[That depends entirely upon whether you want "honey" or "bees." If you want to enlarge your apiary, then run for increase; but if you want honey, then bend all your energies to get the nectar—cut out queen-cells, putting the bees back, etc.—ED.]

QUEENS.

Giving Laying Queens to Colonies Immediately After Swarming.

Written for the American Rural Home

BY G. M. DOOLITTLE.

For years we have been told that no colony should go without a laying-queen a single day, if it were possible to give them one, and plans for introducing queens, which required that the hive should be queenless a few days previous, have been severely critised. We have also been told for years, that the bee-keeper who wished to secure the best results from his bees, should have a laying queen ready to give each old colony as soon as they swarmed, as the time lost to them, by rearing a queen, was equivalent to a swarm of bees.

Being eager to know for myself, all the plans which would give the best results, I have experimented largely, and the truth of the statement that the time lost to the bees in rearing a queen in natural swarming, was equivalent to a swarm of bees, is the reason it has not proven a success. If it were bees I was after, the case would be different.

With me, white clover yields only enough honey to keep the bees breeding nicely, and prepares them so that they mainly swarm from June 20 to July 1. Our honey harvest is from basswood, which blossoms from July 10 to 16.

Now, all who are familiar with natural swarming, know that the bees are comparatively few in numbers in the spring, and increase by the rapidly increasing brood produced by the queen, which, in due time, hatch the bees, until a swarm is the result.

By giving a laying-queen to a colony immediately after it has cast a swarm, we bring about the same result (swarming) as before, for we place the bees in the same condition. The only difference is, that having plenty of brood, they build up quicker, and are prepared to swarm in a shorter time.

As this second swarming, brought about by giving the laying queen, comes right in our basswood honey harvest, it cuts off the surplus honey, for it is well known that bees having the swarming fever, do little or no work in the section-boxes, and if allowed to swarm, the object we have sought after (section honey) is beyond our reach.

Having given the result of my experience on this point, let us look at how the same colony would work, had we not given the bees a laying queen. Eight days after the swarm has issued, the first young queen will have emerged from her cell, as a rule, when the apiarist should remove all the other queen-cells from the hive, so that second swarming is entirely prevented.

In ten days more our young queen is ready to lay, which is about the time the basswood begins to yield honey largely; during this period, between the time the swarm issued and the young queen commences to lay, the bees not having any brood to nurse for the last half of the time, consume but little honey; hence as fast as the young bees emerge from the cells, they are filled with honey; for bees, not having a laying queen, seldom build comb in the sections, especially while there is no unsealed brood in the hive.

Thus, when the young queen is ready to lay, she finds every available cell stored with well-ripened honey. At this point, the instinct of the bees teach them that they must have brood, or they will soon cease to exist as a colony, and a general rush is made for the sections, the honey from below is carried above, so as to give the queen room, and, in a week, we have as a result, the sections nearly filled with honey.

I have often had such colonies fill and complete 30 two-pound sections in from 8 to 12 days, while those to which I had given the laying queen immediately after swarming, did little but swarm during the same time.

Borodino, N. Y.

THE UNION.

Value of the Argument in the Arkadelphia Bee-Lawsuit.

Written for the American Bee Journal

BY EUGENE SECOR.

I am glad that the argument (page 406) of the Counsel for the "Bee-Keepers' Union" in the Arkadelphia bee-lawsuit was published. It will be a valuable contribution to the legal literature of bee-keeping. I do not suppose that any well-informed person thought for a moment that the final termination of the case could be against the right to keep bees.

If my cows should break out of my pasture and injure my neighbor, no one except a lawyer who was "feed" to argue the case against me, would be so foolish as to maintain that the cows should be abolished; but I would be liable for damages. So in keeping bees—the owner should be held liable for damages caused by his negligence, carelessness, and perhaps ignorance.

If I keep my bees so near the street as to annoy teams, or passersby, I could undoubtedly be restricted for the

general good; but the idea that bees can be prohibited from entering within corporation limits, by ordinance, is too ridiculous for serious consideration; because they could be placed just outside the limits, and as they do not appear to respect an ordinance of the City Fathers, nor a barb-wire fence, the annoyance from an occasional intruding bee, would not be removed.

But town counsels—ignorant sometimes of matters pressed upon their attention by interested and unscrupulous persons—do some very unwise, as well as unlawful, acts; hence the need of just such a precedent as this case will furnish for the protection of bee-keepers in the future.

Had it not been for the National Bee-Keepers' Union, that furnished the "sinews of war," this case might have gone against us by default.

A case so wisely managed, and so successfully teiminated, ought to inspire confidence enough in the Union, that its treasury shall never lack "the needful" to defend every worthy case.

Forest City, Iowa.

SWARMING.

Some Experiences with Bees in Swarming Time.

Written for the Prairie Farmer

BY MRS. L. HARRISON.

"Mrs. Harrison, why do you put that little tea-strainer in your pocket?"

O! this is not a tea-strainer, but a queen-cage, and it is very handy, just now. Yesterday I caught four queens out of six swarms, and it saved a deal of work. I put this little cage over a queen, and set it down on the top of a hive, anywhere, until I was ready for it. I then moved the hive from which the swarm issued, and put the new hive in its place, with the caged queen at the entrance.

As soon as she is missed, the bees return, and when they are quiet, I release her. Once I released her too soon, and she flew away, the bees following her. Again, as I released her, she flew, but immediately returned. Perhaps, if the swarm had not been placed upon the old stand, she might not have returned. I had four queens caged at one time, the other day. I take no further care of a swarm when I have the queen caged, and a hive prepared for their return.

One time, I "got left," as the children say. I caged a queen, and moved the old hive, placing a new one on its old stand, with the queen at the entrance. There was another swarm in the air at the same time, and they united. They often do this, when the queen accompanies them, and one will be destroyed. I then returned the old hive to its old stand, and gave the queen to them.

Bees will accept any queen when they swarm, but I noticed lately one balled, where two colonies had united. I had one of the queens caged, and when I saw this one balled, I put her in a cage, and left her in front of the hive among the bees for several hours. As the bees remained and united peaceably, I smoked them, and let the queen run in at the entrance, when she was well received.

Sometimes united swarms will leave the hives after remaining together over night, and return to their old home. Two swarms recently clustered together on a peach tree; the weight of the peaches and bees was too much for the limb, and down it came. I had placed a hive under where they clustered, and one remained and entered the hive, while the other returned home in disgust.

One swarm came out and returned for three consecutive days, and, as this was getting to be rather monotonous, after they returned the third time, I took the swarming business into my own hands. I removed the old hive and placed a new one in its place. Then I removed a frame from the old hive, containing a mature queen-cell, to the new hive. All the field-bees returned to the old stand, and I shook the bees from the combs of the old hive in front of the new one. I did not see the queen, and do not know which hive had her, but it makes little difference, as both had mature queen-cells.

One day last week two swarms issued at the same time and united. Before they were fairly hived, out came a third. I moved the hive immediately to where it was to stand, and spread my apron over the entrance. On came the third swarm and clustered upon the sides and back of the hive, until they were two inches deep; how to get them off and not have them mix with the first swarms, as their hive was then full to overflowing, was the question.

I lifted the hive with its adhering bees from the stand and placed a hive where it stood, and drove them off the sides of the hive. Then I carried the united swarm to a new stand, and all was lovely. As the united swarm was too large for the body of the hive, I put on a case of sections, and drove the bees in from the portico.

When bees leave a hive and are offered another just like it, it would seem that they ought to know what it is for, but they never seem to. I had one exception to this of late. A swarm clustered upon a grape-stake, and as soon as I placed a hive close to it, they came from the stake in a steady stream, and marched right into it.

The rains have caused weeds and grass to grow luxuriantly, and they should not be allowed to interfere with the flight of bees to and from their hives. If a blade of grass knocks down a loaded bee, it either has to crawl into the hive or take wing again, which may take it more time to do than it consumed on its flight from the flowers. Time means honey to bees, the same as it means money to men.

Peoria, Ills.

HIVES.

Will the "Coming Hive" have Less than Ten Frames?

Written for the American Bee Journal

BY J. E. POND.

That the matter of the "coming hive" is one of interest, "goes without saying," if I can judge from its prominence as the subject of thought among our ablest bee-men; but prominent as it is, some may say that enough has been said already on the subject. I admit that the question of size depends largely upon locality and individuality; still the beginner is the one most to be benefitted, after all. Mr. Doolittle, who must obtain all of his surplus in a few days, may well say that the Gallup hive is the one for him; but he is an expert. A novice would do far better at first, even in Borodino, with a larger hive.

I am only led to write this article by reading that of Mr. Robbins, on page 423, in reply to a former one of mine.

Mr. Robbins says: "The 10-frame hive men are in a minority." This I deny; statistics, and my own correspondence, prove to the contrary. If I had a queen that would not fill more than 7 Langstroth frames with brood in 21 days, I should exchange her for a better one at once.

In replying to Mr. R., I am at a loss for argument; but I will say this, that if I was working an apiary for "moth-cocoons," and "mouse-nests," I presume that I should prefer a smaller hive than one 14¼ inches wide; but working my apiary as I do, for surplus comb honey, I want just that size; with it I can work my bees more nearly in accordance with natural laws, than with a smaller hive.

Mr. R. is sick of dummies. Well, who is not? He admits that he must use them, though, even in his hive. I use them, but seldom with a 10-frame hive, and with a decent colony I only use one—½ inch thick—to a hive. I do not use them at all in winter, as I consider a frame of comb a better pro-

tection (because natural) than a dummy.

Take it all in all, however, I only state my own views. Mr. Robbins states his. The question itself will probably never be settled. One thing is sure, however, viz: the 10-frame Langstroth hive leads, so far as the one from which the *best* yield as yet has been obtained.

North Attleboro, Mass.

ITALIANIZING.

How to Secure Pure Italian Colonies of Bees.

Written for the Indiana Farmer
BY J. M. HICKS.

How can we successfully and with certainty rear pure Italian queens, is a question we have often been asked. We answer, just procure a pure tested queen (two are better) early in the season, and introduce her into a full colony after taking the old queen away; then stimulate the colony with some sweetened water (evening is best), in order to prevent robbing. This will start early breeding.

As soon as you have combs containing drone-brood, you can make a few queenless colonies, and at the end of eight days cut out all queen-cells you find, and interchange a frame of brood from the Italians to the queenless ones, and they will again make more queen-cells from the fresh eggs given them.

Then is also a good time to kill a few more black or impure queens, and insert one or two cells taken from the abundance of those you first gave Italian brood, which will hatch in ample time to head off any that might be made from any impure colonies. By this time you will have plenty of pure Italian drones for all practical purposes.

This plan of rearing queens in strong full colonies I think will give better satisfaction than the nucleus method, giving stronger and more vigorous queens. My idea for using two queens in starting is very obvious, that of having drones from two different mothers.

It would be well for all practical bee-keepers to remember that in order to succeed with bees and make them profitable, we must provide pasturage for them, such as Alsike clover, buckwheat, mustard, etc. These and many other farm crops are very valuable for honey.

I feel impressed with the importance of having at least a few acres of Alsike clover, as it is the best crop for having a fine quality of honey; perhaps it is the best flavored of all others.

As to quantity or number of pounds per acre, it is not excelled by any other clover, often producing 500 to 800 pounds. I now have a nice sample of Alsike clover honey 20 years old, as nice flavored to-day as it was when extracted in 1869.

Indianapolis, Ind.

IN CLOVER.

Written for Vick's Illustrated Magazine
BY EBEN E. REXFORD.

Let me lie down in the Clover,
Where the Daisies scatter snow,
And the yellow bees fly over
As my fancies come and go.

Dwellers in a royal palace
Have not softer couch than mine;
And, lo, here's a lily chalice,
Brimming with the morning's wine.

Yonder brook sings low and softly;
But I cannot catch its words,
As they blend in silvery music
With the notes of breeze and birds.

In this sweet, still summer weather
It is easy to forget
That our life has toil or trouble—
Has a cloud, a jar or fret.

Why should we try to remember?
It is well to dream and rest,
And forget that we grow weary,
Though our dreams are dreams at best.

Happy he who puts away
Thoughts of daily life and strife,
Who is deaf to din and discord
Jarring through the chords of life.

Let me lie thus in the Clover,
As a child on mother's breast,
And, awhile the hours fly over,
Dream sweet dreams of peace and rest.

OUR RIGHTS.

Bee-Keepers Have Rights that Must be Respected.

Written for the Colorado Farmer
BY GEO. A. STOCKWELL.

Animal and insect life contributing to man's welfare is entitled to consideration and support. Of all insects bees are the most useful. Other insects distribute pollen and fertilize flowers, but only for their own use. If all insect life should perish, a great shrinkage in the products of the fields would result. The flowers of some plants are so constructed that they cannot fertilize themselves—the pollen must be distributed by insects. The bee is the servant of man, even if it gathers honey for its own use only.

In some cities and towns, bees have been sought to be banished beyond the limits. It is believed that, in all cases, this action of the authorities has resulted from spite on the part of those who made complaint, or from misapprehension of bee-nature.

If a person unacquainted with bees be stung by a wasp, then the colony of bees in the neighborhood is condemned. Bees mind their own business, and molest none unless they are disturbed. In a large city, within twenty feet of the sidewalk of a great thoroughfare, bees, sometimes 4 or 5 colonies, have had their head-quarters for 25 years. As the bees' houses cannot be seen from the street, probably the neighbors, unless old residents, or acquainted with the owner of the bees, do not know that thousands of bees dwell within a stone's throw.

The bees' pasture is the world at large, unhemmed, or not hemmed by board or barb-wire fences. Thousands of bees come and go in every garden, and no one is the wiser, but every garden-holder is richer. One man, out of spite, sued his neighbor for damage done by bees. As there were many bees in the place, the bees complained of might belong to bee-keepers other than the neighbor prosecuted.

[A high-board fence should be maintained between the apiary and the sidewalk, for safety as well as for privacy. It would save apprehension. —ED.

QUEENS.

Their Improvement Means Better Bees and More Honey.

Written for the Western Farmer
BY DR. J. W. VANCE.

As so much depends on the quality of our queens, it is very essential that we should be posted in the best methods of producing queens of the highest grade. A good deal has been written on the subject during the past ten years. Many have turned their attention to it, and developed a regular business of producing queens for the market, shipping them to all parts of the world through the mails.

No doubt apiculture has been greatly benfited by it, for there has been undoubtedly a steady improvement in the quality of bees, in gentleness, in activity, and capacity for work. There has been a looking forward for the "coming bee," and occasionally some enthusiastic bee-keeper has shouted "Eureka!" as he beheld the bee that his careful and persevering efforts have developed. But the end is not yet. Perfection is yet in the future. Perhaps improved methods, and a clearer understanding of the nature and physiology of this most wonderful insect, may enable us to reach the result sought.

Mr. G. M. Doolittle, of New York, has written a most admirable work on the subject, giving a very interesting and instructive account of his experience in queen-rearing. He has given such a clear and minute description of the methods he has adopted that almost any bee-keeper can follow him, and attain equal success. He has made many useful discoveries, and perfected the inventions of others. We have read the book with the deepest interest, and do not hesitate to recommend it to any one interested in bee-culture.

Madison, Wis.

OVER-STOCKING.

How Many Colonies to Over-Stock a Locality?

Written for the American Bee Journal

BY W. A. HODGE.

The following is a small list of bee-keepers, and the number of colonies kept by each, who live inside of a range of four miles of me. I give it simply to show the magnitude of the bee-keeping industry in a very small portion of Vernon county, Wis. :

C. Lawrence, 90.
A. Cuen, 30.
J. Holender, 18.
J. Getter, 10.
W. A. Hodge, 80.
J. T. Elgar, 20.
B. Nighlan, 20.
R. Valliant, 15.
Mr. Winneweazer, 15.

Besides the above, there are several other parties who keep a few colonies, and a few more who tell me that they are going into the bee-business next year.

Now, it occurs to my mind, that if this state of affairs continues to exist, and each bee-keeper keeps a cow or two, that one of two things is sure to happen, and that is, we are going to over-stock the country with bees, or the valleys of Wisconsin will "flow with milk and honey," and that very soon. I should be pleased to have some, who have had lots of experience, to tell, if they can, about how many colonies of bees can be profitably kept to the square mile, with a reasonable amount of pasturage.

Cold, but Sweet, Wisconsin.

Bees are doing splendidly at the present time, and since June 10 they have been storing honey very fast; and should the weather continue favorable, and we get our usual fall run on the islands and river-bottoms, we will make the best honey-record that we have ever made—at least in the past twenty years. I think, perhaps, the consequence will be that we can all eat our honey, or keep it to look at, as prices will run away below paying expenses; but I, for one, say: Good for old Wisconsin; she is *sweet* if she is *cold!*

Victory, Wis.

INCREASE.

My Plan for Making It by Dividing.

Written for the Farm, Field and Stockman

BY S. E. MILLER.

No doubt most of the readers have seen a great deal that has been written about artificial swarming, but perhaps have not taken the pains to try it. As my brother and I tried last year with one swarm, and were so well pleased with the result, that we tried it on several colonies the present season with satisfactory results, I will give our method.

As the bee-keeper with a number of colonies has generally plenty of other things to occupy his attention during swarming time, it is not at all a small job to be continually on the watch during the hours that they are likely to swarm, viz., from 10 a.m. until 3 p.m. Therefore we concluded to help all of those along that were making preparation for swarming, and thus relieve ourselves for a time, of the trouble of watching them. Even though our queens' wings are clipped, we do not like to have a swarm issue and return again without us having any knowledge of the fact.

We go to a colony that is strong enough to cast a good swarm (and are likely to be making preparations to do so), remove the hive far enough from its original stand to be convenient, and place a new hive on said stand.

The frames may be filled with empty combs, full sheets of foundation, or foundation starters, at the discretion of the operator. We use only fonndation starters, and I would not advise using empty combs, for in case there is a large flow of honey the bees will soon fill the combs with honey, and the queen will be left without cells in which to deposit eggs. If honey is coming in at a rate to warrant it, and you wish to run them for comb honey, put on the surplus receptacles at once, and close the hive, all ready to receive the bees. To insure their staying, it may be well to put a frame of brood in the new hive.

You are now ready to open the parent hive, and shake the bees in front of the new one, and let them march in. If the weather is warm, you can take nearly all of the bees from the old hive, as the new one is the one from which you must get your surplus; be sure to get the queen into the new hive, or she may get lost in the grass and never find her way into the hive, that is, if she has clipped wings. You can now move the parent hive to a new stand, but before leaving it, cut out all queen-cells but one (the best looking and furthest developed), and in eight days cut out all new ones that they may have started.

If they have no cells started at the time of swarming, they will only need to be removed the eighth day, of course leaving the best one to hatch as before stated. I am well aware that many older bee-keepers than myself will not favor this method, while there are some of the successful veterans who practice it, or something similar, almost exclusively. Taking all things into consideration, I think there are some advantages in it, while we have yet to find any disadvantages.

What bee-keeper has not seen a colony apparently in a condition to cast a powerful swarm, lingering day after day with a great cluster hanging on the outside of the hive that might just as well be storing many pounds of honey, as lounging around doing nothing?

This was the case with those that we tried last summer, and although it was at a time when other colonies were doing almost nothing but trying to rob, they drew out the foundation, and in a short time built up to be a strong colony, wintered well, and came out in the spring quite strong.

We have now in our apiary a number of colonies that were swarmed artificially on or near the same dates as others that cast swarms naturally and were hived according to the same method. Taking it on an average, I can see no difference in their present condition.

I would not, however, advise any one to practice this method on a large scale, without first trying it with a few colonies to see how they like it, and it would not be wise to try it when bees are not swarming naturally.

Missouri.

New Posters for the AMERICAN BEE JOURNAL, printed in two colors, have just been printed, and will be sent free to all who can use them. They are very handsome, and will "set off" an exhibit at Fairs. It will tell Bee-Keepers how to subscribe, for "Subscriptions Received Here" is quite prominent at the bottom.

We will also send sample copies of the BEE JOURNAL, for use at Fairs, if notified a week or ten days in advance where to send them.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Aug. 20.—Northern Illinois, at Guilford, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

Aug. 31.—Haldimand, at Fisherville, Ont.
E. C. Campbell, Sec., Cayuga, Ont.

Sept. —.—Maine, at Livermore Falls, Me.
J. F. Fuller, Sec., Oxford, Me.

Sept. 5.—Erie County, at Buffalo, N. Y.
O. L. Hershiser, Cor. Sec., Big Tree Corner, N. Y.

Dec. 4, 6.—International, at Brantford, Ont., Canada.
R. F. Holtermann, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Cold and Wet Weather.—J. F. Latham, West Cumberland, Maine, on July 3, 1889, writes:

Bees are not doing very well in this vicinity. There is an abundant bloom, but the weather is, and has been so far, very cold and wet.

Bees Doing Well.—J. V. Caldwell, Cambridge, Ills., on July 2, 1889, writes:

Bees have done well here this season. I have had some trouble in keeping down the increase to where I want it. Bees would swarm, with all the room they needed. I have not taken off much honey yet. I have increased so far from 112 colonies to 180. My first swarm from a new swarm came off to-day—after completing 56 one-pound sections.

Good Honey Weather.—Geo. F. Robbins, Mechanicsburg, Ills., on July 5, 1889, says:

The last ten days have given us the best honey weather that we have had this year.

Basswood all Right.—I. E. Myers, Mahtomedi, Minn., on July 9, 1889, says:

The lindens here are all heavily loaded with sound buds, that now begin to open. It is high time for it to bloom, for bees have been looking almost in vain for nectar; since the honey-dew ceased the bees continue to rob, and do not visit the clover nor any other blossoms which abound in this region. They store little or no honey, and build very thick comb ahead of their apparent wants. Colonies have given, on an average, 30 pounds of new honey so far.

Expects a Big Crop.—H. C. Gifford, Morris, Ills., on July 8, 1889, writes:

I wintered 21 colonies, and have now 44. I have taken off 30 pounds of new honey, and have at least 1,000 pounds in the sections. I will take off, this week, I think, from 300 to 500 pounds. I have had a time of it with swarming, but have doubled up and put back nearly half of the swarms. Moving the old hive to a new place did not prevent them, this year, from casting the second swarms, and tiering has seemed to have not much effect on them. I have 2 or 3 tiers of sections on all my hives, to prevent swarms, but as others have had so much more swarming than I have, I ought to feel satisfied. I expect a big crop of honey. Basswood is just a-blooming on the Illinois river bottoms.

Experience in Bee-Keeping.—M. M. Ritter, Canoga, N. Y., on July 8, 1889, writes:

The AMERICAN BEE JOURNAL is a great guide for me on bee-keeping. I could not get along without it, any more than I could without bread. I commenced with a colony in an old box-hive, and I went slow but sure. Three years ago this spring I wintered 5 colonies, and now I have 14 good ones, whose hives are full of bees and lots of honey. I had 2 swarms on June 9, and from one I have taken 30 pounds of comb honey in one-pound sections. On June 28 and July 6 they swarmed, when I put them back again, and they have staid all right up to this time. The bees in the box-hive I transferred, and they are doing well, and are working in the sections. I am pretty sure of 300 pounds of comb honey this season.

Foul Brood.—R. P. Blades, Carmi, Ills., July 6, 1889, writes:

The question most agitating the bee-rearers of Southern Illinois, and almost every other part of the country is this: How shall we avoid foul brood? There is foul brood in almost every county in the State of Illinois, and the owners do not know what is the matter with their bees. Even if they do, they do not know how to get rid of it, and just leave it to infect the whole country. They think their bees are gone, and do not care whose bees go next. There are men who have standard works on bees, and yet fail to recognize the disease. Sometime ago, a man, who possesses Root's A B C book, called me in to ask me what was the matter with his bees. The first look at them ought to have satisfied any sensible man what the trouble was—"foul brood" of the very worst character. After being told that it was foul brood, he readily recognized it, after having lost 12 out of 15 colonies of bees, and the other three, after being united, made one fair colony. Now let every bee-man in the country take measures to get rid of it. Call meetings and give and take advice. Ask the next Legislature to appoint inspectors for each county in the State to see that the bees are kept in a healthy condition. Give him power to destroy foul brood wherever found. This is the only way to get rid of what is to-day to bee-culture the same as the pleuro-pneumonia is to the cattle-raiser, or cholera with hogs. If not stamped out quickly, it will get past control.

Good Bee-Pasturage, etc.—E. Briggs, West Point, Nebr., on July 5, 1889, writes:

One man's bees have died, and I fear that foul brood is in the neighborhood. I began the spring with 9 colonies—7 in good condition, and 2 light. I have had only 4 new swarms, but they were strong. There are as many drones as workers in almost every colony of bees that I have seen in the county. I think that is not right. The bee-pasturage is the best that we have had for several years.

A Woman's Success with Bees.—Mrs. Anna Thompson, Knoxville, Iowa, on July 9, 1889, writes:

My husband, C. B. Thompson, died on May 14, and left me 50 colonies of bees. We had a man that knew a great deal about bees, but the first day that we had 3 swarms, we lost 2 of them, and the man went with them. I then hired a boy that did not know all about bees, but who was willing to learn, and we have since increased the bees to 81 colonies, and have taken 320 pounds of extracted honey, and 3,000 pounds of splendid honey in one-pounds sections. I have always been in mortal terror of the bees, but I was placed in a position that I was obliged to attend to them, so I hunted up all the old bee-papers, and held my breath to keep from being stung, and I think that in a year or so, if I follow all the rest of the advice that I find in the bee-papers, I will know as much as the man that left with the swarms. I vote for the "Golden-rod" for the National Flower.

Simmins' Non-Swarming System, and the AMERICAN BEE JOURNAL for one year, for $1.25. The subscription to the BEE JOURNAL may begin now.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

Illustrated HOME JOURNAL

An Elegantly Illustrated Monthly for the
FAMILY AND FIRESIDE,

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Printed in the highest style of the art, and profusely embellished with Magnificent and costly Engravings.

The Illustrated Home Journal is a moral, high-toned and intellectual educator, and is invaluable in every library, as well as a very attractive and inspiring ornament in every drawing-room. Each Number of it contains 36 pages.

Its stories are elevating in tone, as well as charmingly thrilling and captivating; its historical and biographical sketches are fascinating and delightful; its Department for "Our Young Folks" is enticing and alluring; and its miscellaneous matter leads to the higher life, and the moulding of more beautiful thoughts and affections.

It should be found in every family, and should take the place of the impure and trashy publications, which now abound, and are a curse to the rising generation.

One Dollar a Year.—It is now demonstrated that the ILLUSTRATED HOME JOURNAL will attain a very large circulation, and so we have concluded to reduce the subscription to the popular price of *one dollar a year.* This change will take effect at once, and we shall give all our subscribers the benefit of this reduction, from the commencement of their subscriptions.

The ILLUSTRATED HOME JOURNAL will be clubbed with the American Bee Journal and both mailed to any address in the United States and Canada, one year, for **$1.75.** The contents of the July Number are—

The Great Flood in the Conemaugh Valley, Penn., with its Loss of Life and property 111
Illustrations: Map of the Flooded District—The Conemaugh River—Johnstown before the Flood—Position of the Dam—Paul Revere Park—Scene in a Johnstown Morgue—Scene in One of the Principal Streets—The Drift Against the Bridge—The Flooded Valley—Floating Houses.
The Samoan Commission 114
Illustrations: Nine American Members.
A Summer Scene in Pleasure Park (Full page Illustration) 115, 138
Montenegro's Ruler 116
Illustration: Prince Nikita.
West Point and its Military Academy Described 116
Illustrations: One of the Cannons—Grant Dining Hall—Guard Mount—Interior of Chapel.
Learning to Swim 118
Illustration: The Breast Stroke.
Stray Bits (Items) 118
The Challenge Accepted; or, How Kate Clifford Won—Chapter V 119
Tangled Thicket (Illustration) 121
Our Independence Day—The Fourth of July, 1889 (Five Illustrations) 122
Wicked Fan Flint—A Fourth of July Story 123
Illustrations: Bang—Fan—Alice—That Boy—A Pistol Shot—In the Water.
Music:—"Sailor Chorus" 126
The Puzzler (Illustrated) With key to former issue 128
Balloon Taking Possession of the Pacific Ocean (Full page Illustration) 129, 138
Our Young Folks:—"The Girls that are Needed"—by Geo. W. York 130
Orange Trees of Florida 130, 138
The Housekeeper:—"My Recipe Book"—by Lucy Langdon 131
A Moment of Anger; or, the Quarrel of Mr. and Mrs. Brownlow—Chapter VII 132
Illustration: She Went to Yonkers.
Detroit Exposition 133
Illustration: The Main Building.
Gems of Thought for Every Day 134
The Flag and its Maker 134
Illustration: Capt. S. C. Reid.
Biographical:—Amos I. Root (Illustrated) 135
Many Long Farewells—Opening Day of Life's Work 136
Illustrations: Birthdays—Happy Father—The Happy Mother.
POETRY:—
Americans All 122
A Problem of Numbers 128
Doom of the Conemaugh 133
Elizabeth Zane 123
July Day 135
Love Always Here 139
One Hundred Years Ago 116
School-Day Memories 136
The Buttercups 119
The Girls that are Wanted 131
The Hand that Rounded Peter's Dome 131
The Music of the Rest 131
The Nation's Dead 128
To-Day and To-Morrow 118
To Stay at Home is Best 133
Youngster from Skye 128
MISCELLANY:—
Confucius 137
Daughters of Eve 137
Fire Cracker 125
Freaks of Fashion 137
Gobelin Tapestry 125
He was Competent 125
Lady Physician in London 137
Male Fads in Jewelry 131
Marvelous Success 125
Mrs. Wanamaker 133
Necklace Notes 134
New York's First Fourth 128
Novel Cure for Rheumatism 118
Professional Advice 128
Rev. Edward Everett Hale, D. D. 117
Sleep 118
The Perennial Fly 114
The Sky-Rocket (Illustrated) 125
Wanted it Changed 137
Why the Schoolma'am Thrashed Him 118
Young Love on its Way Home 117

A Gold Watch Given Away.—To any one (lady or gentleman) who will send us fifty subscribers, we will give a nice **Gold Watch**—(instead of all other premiums and offers). It will be an Elgin Movement, Stem-Winder, Stem-Setter, and have a finely-engraved Gold-filled case (warranted to wear 15 years), and all of the most modern improvements.

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Now for earnest work and good pay for it! A nice Gold Watch for every one who will give a few days' work for it!

Honey and Beeswax Market.

CHICAGO.

HONEY.—New crop is appearing, and prices range from 15@17c. An active market is not looked for till later. Extracted, new crop, 7@8c. Very light receipts, and few sales.
BEESWAX.—25c. R. A. BURNETT.
July 11. 161 South Water St.

CHICAGO.

HONEY.—Old crop of 1 and 2 pound white clover honey exhausted, but considerable 1-lb. buckwheat is being offered. Our first receipts of new 1-pound white clover were in this week, and is selling at 14@15c.; dark 1-lbs., old, 10@11c. Extracted, dull, 6@8c.
BEESWAX.—25c.
July 11. S. T. FISH & CO., 189 S. Water St.

DETROIT.

HONEY.—No attractive honey in the market, and sales are slow at 12@15c.
BEESWAX.—24@25c.
June 22. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—Very nice new comb in 1-lb. sections is selling at 18c. Very little old honey of any kind is on the market, and no new extracted.
BEESWAX.—None in the market.
June 26. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Extracted, in barrels, 6½@6¾. Excellent demand for clear, bright in barrels. Dark, 5¾@6c.
BEESWAX.—Scarce at 23c. for prime.
May 22. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—Extracted in good demand. We quote: Fine orange-bloom at from 7@7½c.; off grades of Southern, 60@70c. per gallon.
BEESWAX.—Scarce, at 26½@27½c. for good.
HILDRETH BROS. & SEGELKEN,
June 6. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—Not a case of comb honey in our store—something unknown for a long time. Expecting the new crop every day. Price will be about 18c. We have some new Vermont extracted white clover, which sells at 8@9c.
BEESWAX.—None on hand.
July 10. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb., and 12@15c. for fair to choice comb. Demand slow, and arrivals are fair of the new crop.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
July 13 C. F. MUTH & SON, Freeman & Central Av.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; sent by mail, add 1 cent each for postage.

Subscribers who do not receive this paper promptly, will please notify us at once.

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PRICES REDUCED.

UNTESTED QUEENS, 65 cents.—10 for $6.00. Select Tested, $1.50. One and 2 cent Stamps taken when Money Orders cannot be had. Make Money Orders payable at Nicholasville. Can send by Return Mail.

July 1st, 1889. **J. T. WILSON,**
LITTLE HICKMAN, Jessamine Co., KY.
28A2t—30Etf

A Mystery Explained.

CHICAGO, ILLS.—Mr. Alley: Do you keep Black and Italian bees in the same apiary? If so, how do you keep the Italians pure?
R. G. COLBURN.

REPLY:—Yes; we keep Black, Carniolan and Italian bees in the same apiary. The Italians are kept pure by placing the Alley Drone-and-Queen Trap on all hives but one containing a select breeding queen. We do not even allow the drones to fly from all our pure Italian colonies. No helter-skelter mating of queens is permitted in our apiary. No dealer can send out *all* purely-mated queens who does allow it even in an apiary where all the colonies are supposed to be pure Italians. We are credited with sending out the best queens of any dealer, and can only keep up that reputation by using the Drone-and-Queen trap.

Try one of our $3 Select Tested Italian queens. Select warranted queens, $1.25; warranted queens, $1.00; tested, $1.50. The *American Apiculturist* one year and select queen, $1.50. Send for sample copy.
Address, **HENRY ALLEY,**
28A2t **Wenham, Essex Co., Mass.**

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WOOD'S **ITALIAN QUEENS** will be shipped by Return Mail to any address in the U. S. or Canada for $8.00 per dozen—75 cts. each, if less than one dozen is ordered. Single Queens to Canada, 85 cts.

My Queens are all Warranted Purely Mated, and Safe Arrival Guaranteed. Remember, that if a single Queen proves Mismated, she will be replaced by a Select Tested one. Not one Queen in 100 mismated last season. As I am isolated from other Bees, hence I am able to make this offer to all.

I use no Lamp-Nursery, and every Queen has filled several combs with Eggs before she is shipped. If you want Fine, Large Queens, that are almost certain to prove to be Purely Mated, send your Orders to,

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My 21st Annual Price-List of Italian, Cyprian and Holy-Land Bees, Queens and Nuclei Colonies (a specialty); also Supplies—will be sent to all who send their names and addresses. **H. H. BROWN,**
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SAFE winterer, easy in manipulation, durable, cheap, and, for large yields of honey, is unsurpassed.

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BEES AND QUEENS. Send for free catalogue. Address
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NOW Ready to Mail.—TESTED ITALIAN QUEENS, $1.00. Frank Benton's Imported Queens, $4 each. Address, **S. F. REED,**
23D4t NORTH DORCHESTER, N. H.
Mention the American Bee Journal.

SEND $1 for a Choice Untested Carniolan Queen. Send Registered Letter or Express Money Order. **A. EASTMAN,**
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A POSITIVE FACT!
Queens by Return Mail!
From the Old and Reliable
KNICKERBOCKER BEE-FARM
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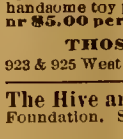
☞ Circular and Price-List Free.
G. H. KNICKERBOCKER,
27Dtf Box 41 PINE PLAINS, Duch. Co., N. Y.
Mention the American Bee Journal.

NEW ONE-POUND HONEY PAIL.



THIS **new size** of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **Price, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison-Street, - CHICAGO, ILLS

The Hive and Honey-Bee, and Dadant's Foundation. See advertisement in another column.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. July 27, 1889. No. 30.

EDITORIAL BUZZINGS.

Love is where the sunshine glows,
Love is where the lily blows;
Is with yonder little bird,
Is with all the wildwood herd.
If no human love be near,
Love from God is always here.

Entrancing.—That is the word used by the editor of the *Farm, Stock and Home* when noticing the Doolittle book, entitled "Scientific Queen-Rearing." After describing it, he says:

The reputation of the author is ample guarantee of the practical value of the work. To the apiarist it is almost invaluable, and to the ordinary reader, or the student of Nature's wonders, it is entrancing as a fairy story.

Every reader of the AMERICAN BEE JOURNAL should send $1.00 to this office for a copy, and read it, too. If you send a year's subscription at the same time, $1.75 pays for both the BEE JOURNAL and Doolittle's book.

Father Langstroth's address is 928 Steele Avenue, Dayton, Ohio. By an oversight this was omitted last week. Concerning his annuity, we do not wish to say much, because he is naturally sensitive, and of course sees the BEE JOURNAL whenever he can see or read anything. "A word to the wise is sufficient."

Mr. Jas. F. Wood, of North Prescott, Mass., when sending his mite to this office for Father L., writes thus:

Can any one who has realized the benefits of the movable-comb hive, concientiously let Father Langstroth want for the comforts of life? But few of us ever bought the right to his invention—let it not be added, and but few of us ever helped him!

Send direct to his address, unless you prefer to send to us and have it go in bulk to him. Any way, so long as it is done.

Inexcusable Falsehoods.—O. S. Compton, of Glenwood, Mich., sends us the following, which he says was clipped from "The Family Herald and Weekly Star," published at Montreal, Canada, on July 10, among its "items of interest." Here is the mischievous item:

Artificial honey, which is more common in the market than consumers know, is made of potato-starch and oil of vitriol. Some rash optimists think that they are sure of getting the genuine product of bees and flowers by purchasing honey in the comb. Deluded mortals! The exquisite white comb that pleases them is often made of paraffine wax.

Mr. Compton remarks, "What a mess it would make? When will newspapers stop this lying?"

Aye, that's the question—*When?* At present they seem to be vieing with each other in telling the most inexcusable falsehoods about our pursuit! There is neither sense nor reason, neither object nor excuse for such paragraphs as the above! The idea of potato-starch and the oil of vitriol making "honey!" It is not only untrue, but absurd nonsense!

The "deluded mortals" are those who believe the story of the *Star* about paraffine combs, potato-starch, and oil of vitriol!

Bro. D. A. Jones should see to that "deluded mortal" who scribbles such foolishness for the Montreal *Star*.

Those who assert that "honey-combs are made of paraffine," filled with glucose, potato-starch, oil of vitriol, etc., and "sealed up by machinery," should produce a crate of such stuff, and obtain the $1,000 offered by Bro. Root for a sample of it—or else cease to repeat their villainous falsehoods, which are a detriment to an honest industry.

Many Persons are always seeking for something *new*—and, while this stimulates invention in legitimate lines, it also makes some would-be inventors "crazy" to dig out from the unfathomable depths, that which rewards them only with disappointment. Again, there are other "lunatics" who conceive the idea of having evolved from their brains something that will "revolutionize the world." The latter are caricatured very spicely by the following which has just come to hand from one of our correspondents. He says:

How can the bee-keeper manage in order that his hives may be full of bees ready for the honey-flow, has long been a subject of much discussion among the bee-keepers of to-day.

The machine I use in my apiary, the "Patent-Applied-for-Regulator," is an invention of my own, and I find it of great service in this respect, as it is so arranged that I can turn the bees "on" and "off" *ad libitum*.

It is constructed something like the burner of a gasoline stove, and it is operated in somewhat the same way. When there is a good honey-flow I turn the bees "on;" and just as soon as they have gathered it I turn them "off," and they are transferred into a chloroformed apartment, where they lie insensible until needed.

This machine, when fairly brought before the eyes of a waiting and appreciative public will, no doubt, be capable of meeting "a long-felt want."

Dr. Dzierzon has again been "decorated"—this time with a diploma, as will be seen from the following from the *Revue Internationale*, published by our friend, Mr. Ed Bertrand, at Nyon, Switzerland:

Dzierzon, born in 1811, is still living a retired life in Brieg, Silesia, where he has been for several years. The University of Munich has awarded him the diploma of Doctor of Philosophy, as a reward for his numerous scientific works, and for his theory in regard to parthenogenesis.

Ten years ago we witnessed a pleasant ceremony when he was "decorated" by Dr. Butlerow, Councellor of the Government of Russia, by Order of the Czar, with the Order of Sauta Anna.

This new "honor" adds to the many laurels of distinction worthily worn by a grand and distinguished apiarist. We hope he may long enjoy the proud distinctions so honestly and honorably earned.

A Lady writes from Missouri for information in this manner:

Please answer through the JOURNAL, whether or not ladies are entitled to vote for the National Flower.

We reply, of course they are entitled to vote. All they have to do is to send for the pamphlet, and a Postal Card "Blank Vote" will be found in the package addressed to Mr. Prang. This they should fill up, and drop in the mail—and there is no restriction—every man, woman and child has a right to vote for the National Flower; for the children soon take the places of father and mother. Let every one vote.

Every Person who orders any article should make that order complete in itself, and not say, "send the same as you did last year," or "last month;" or the same as you sent John Jones. Not any one of all the supply dealers can afford to waste the time to look over thousands of orders to find out what was sent before—and even if they did do so, the time would be worth more than the profit on the order would amount to.

Last week a man sent an order for goods to a supply dealer, and neglected to sign his name, and the order had to be laid aside until he should be tired of waiting, and write again. He waited several days, and then sent a telegram, but then only signed two initial letters—no name—and hence he could not get a reply. He telegraphed from another town than that at which his letter was mailed. There is no reason for such carelessness. At this writing, he is still waiting for the goods, which the dealer has all ready for him, but awaiting a *name* to ship to. It is a good rule, never to send a letter without re-reading it, and being *sure* that it contains your name, post-office, county and State.

After Nearly Ten Years of suffering, Mrs. J. Vandervort, of Laceyville, Pa., passed peacefully away on July 12. The AMERICAN BEE JOURNAL condoles with Brother Vandervort in his bereavement.

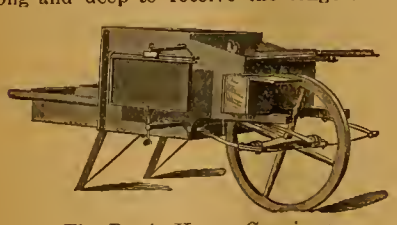
GLEAMS OF NEWS.

In the Paris Universal Exposition, the Swiss Department was to have contained (according to catalogue) 137 hives of all kinds, but the Paris correspondent of the *British Bee Journal* could not find them. He says:

For days and weeks past we have been in and out to see whether the exhibit of Mr. Zimmerman had arrived. In the official catalogue Mr. Zimmerman is described as exhibiting no less than 137 hives of all systems, but, alas! for human promises, there is only one bee-hive in the whole section, and that is by another maker. It would have been a real novelty to have seen 137 bee-hives at one exhibition, and would have filled pages of your *Journal*, but they are not there; and the officials, whom I have closely questioned, know nothing whatever about them.

Portable Tool-Box.—A correspondent remarks that he feels certain that almost every one handling bees has felt the need of an easy and convenient method of carrying honey from the hives to the extracting room, and returning the empty combs to the hives, and at the same time have a full supply of apiarian tools, scrap-pans, etc., always at hand and ready for immediate use. He desires to know the probable cost, and where such can be obtained.

The best thing we know of in that line is called the Davis Honey-Carriage. It contains a honey-comb safe, made sufficiently long and deep to receive the longest and



The Davis Honey Carriage.

deepest honey-frames in use, and wide enough to hold all the frames used in a story in perpendicular position. It has a dripping-pan to save the honey from being wasted or dripping around.

One of its principal features is a Tool-Box, in which to carry the smoker, fuel for the smoker, matches, queen-cages, transferring clamps, etc.; also, all the tools needed in an apiary. The cover of this box is hinged at the front end, and when turned forward so as to open the tool-box, it rests on an adjustable device so as to form a convenient and strong writing-desk, on which a memorandum book or sheet of paper, or both, may be fastened, and be always convenient for making notes and keeping a record of your work.

It also has a revolving comb-hanger, and is an invaluable article in an apiary.

Its price is $18.00, and it can be obtained at this office.

Surplus Boxes and Sections.—Alexander Le Roy, Amiens, France, asks the following questions:

1. What was the origin of the honey sections or surplus-boxes?
2. Who first thought of them?
3. Was it the Rev. L. L. Langstroth?
4. Did Mr. Langstroth invent sections when he devised his frame hive?
5. Were sections in four pieces when first made, and then one-piece sections with square grooves; and after that, those with the V groove?

In reply we offer the following as nearly as we can remember the facts. If we are in error, we shall thank any one to give a correction, for only the exact truth on every subject is of any value:

1. The *origin* of "boxes" for surplus honey was probably in the "California frames," first used by Mr. J. S. Harbison, who was most likely the inventor of such frames, which were made something like the

Dovetailed Sec'n. Nailed Section. California Frame

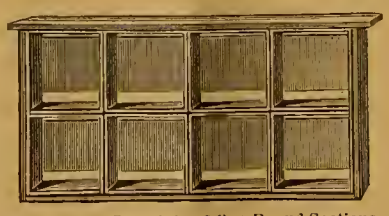
brood-frames, only they were about 6x6 inches in size, and the sides and top were 1½ inches wide, with narrower bottoms.

2. The first "honey boxes" were made to hold several combs about 6 inches square. A. G. Hill, of Indiana, conceived the idea of sawing about half through these boxes every 2 inches, so that the retailer could with a knife cut the combs apart, without injuring the honey-combs.

About the same time Geo. T. Wheeler, of New York, invented honey-boxes for single combs, having wood tops and bottoms, glass ends, and when taken from the hives (where full sized tin separators were used) the sides were also glassed. The entrance for the bees was through a "slot" in the bottom pieces.

Then N. N. Betsinger, of New York, we think, invented the honey-box made by nailing 2x⅛ inch sides to 1½x1¼ inch tops and bottoms, to be used with tin separators, and glassed on the sides after being taken from the hives. These were to hold 2 pounds of honey.

Then Mr. A. I. Root, of Ohio, we think, invented one-pound sections, eight of them, 4¼x4¼ inches, to fit into a "wide frame"



Wide Frame Containing 8 One-Pound Sections.

of the same size as the Langstroth brood-frame. These were of ⅞-inch wood all around, and were "dovetailed;" the sides being 2 inches, and the tops and bottoms 1¼ inches wide, leaving room for the bees to enter between every two—to be used with tin separators 3½ inches wide.

3. No.

4. Honey sections were unknown when the Langstroth hive was invented—it had frames for surplus honey similar to the brood-frames, but one-half their depth, and were used above a honey-board having holes bored in it to admit the bees to the surplus apartment.

5. After the four-piece dovetailed sections before mentioned, Prof. Cook used berry-box stuff bent to shape around a block, and nailed. Then several attempts were made to get the sections made all-in-one-piece; but that was not perfected until about 1880,

One-Piece One-Pound Section.

in Watertown, Wis., when the present one-piece section with V groove was made and put upon the market.

Later the square groove section was made by Mr. A. I. Root, of Ohio, but it was abandoned as soon as the Forncrook patent was invalidated by the United States Supreme Court decision. Now the V groove one-piece sections are universally used—all others are abandoned.

Another Falsehood Retracted.—On page 339, we called attention to an item in the *Sanitary Era*, averring that "comb" was "made artificially," and that "artificial honey, of glucose and sugar, with a little bitter almond flavoring," was upon the market, etc.

We then denounced the article, and demanded that the *Era* make a correction in its columns. It has done so, but very reluctantly. It says:

We are very glad to learn both that pure honey can be had of any honest honey-dealer, and that artificial comb is not filled with glucose, nor even successfully manufactured as yet. Honey in the comb, it seems, can be relied on.

We are pleased to see that the *Sanitary Era* may be classed among the honest papers, which are always willing to correct a false statement! We wish some other papers who have lately transgressed, would do the same—and thus place themselves in the truth-loving class.

The Completion and dedication of the National Monument to the Forefathers at Plymouth, Mass., the corner-stone of which was laid thirty years ago, gives timeliness to the well-written and beautifully illustrated article of "The Pilgrim Fathers," which leads off this number of *Frank Leslie's Popular Monthly* for August. The short stories, illustrated poems, miscellaneous essays, etc., are up to the first-class standard, and the new literary department begun in this number promises to be a valuable feature.

How to Join the Union.—Several have lately sent inquiries to know how to become members of the Union. In order to answer all at once, and save writing a letter to each, we invite attention to the following:

The Entrance Fee is $1.00, and that pays for the Dues of any portion of the unexpired current year, ending Dec. 31.

Then it costs only one dollar for Annual Dues, which are payable every New Year's day, and must be paid within six months, in order to retain membership in the Union.

If membership ceases, all claims against former members also cease; and all claims to the protection of the Union are dissolved.

The Constitution as last amended reads as follows:

ARTICLE I.—This organization shall be known as the "National Bee-Keepers' Union," and shall meet annually, or as often as necessity may require.

ARTICLE II.—its object shall be to protect the interests of bee-keepers, and to defend their rights.

ARTICLE III.—The officers of this Union shall consist of a President, five Vice-Presidents, and a General Manager (who shall also be the Secretary and Treasurer), whose duties shall be those usually performed by such officers. They shall be elected by ballot, and hold their several offices for one year, or until their successors are elected; blank ballots for this purpose to be mailed to every member by the General Manager.

ARTICLE IV.—The officers shall constitute an Advisory Board, which shall determine what action shall be taken by this Union, upon the application of bee-keepers for defense; and cause such extra assessments to be made upon the members as may become necessary to their defense; *provided* that only one assessment shall be made in any one fiscal year, without a majority vote of all the members (upon blanks furnished for that purpose), together with a statement showing why another assessment is desirable.

ARTICLE V.—Any person may become a member by paying to the General Manager an Entrance Fee of ONE DOLLAR, for which he shall receive a printed receipt making him a member of the Union, entitled to all its rights and benefits. The Annual Fee of $1.00 shall be due on the first day of January in each year, and MUST be paid within six months in order to retain membership in this Union.

ARTICLE VI.—The Funds of this Union shall be used for no other purpose than to defend and protect its members in their rights, after such cases are approved by the Advisory Board; and to pay the legitimate expenses of this Union, such as printing, postage, clerk-hire, etc.

ARTICLE VII.—This Constitution may be amended by a majority vote of all the members at any time.

The Entrance Fee and Dues must be sent direct to the General Manager, Thomas G. Newman, Chicago, Ills., who will record the names, and send receipts for every dollar sent in. The Union needs funds now, and at least one thousand bee-keepers should each become members immediately.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

QUERIES and REPLIES.

Advisability of Clipping the Queen's Wing.

Written for the American Bee Journal

Query 644.—1. Would you clip the queen's wing? 2. Why? 3. When?—T. F.

No.—J. P. H. BROWN.

No.—DADANT & SON.

I do not practice it. I can see some things in its favor, and some against it.—H. D. CUTTING.

No! I work on the non-swarming plan.—J. M. HAMBAUGH.

1. Yes, every time. 2. To save work. 3. The first time I see her after I find eggs.—A. J. COOK.

1. Yes. 2. So that the swarm may return. 3. In the spring, when cleaning out the hives.—MAHALA B. CHADDOCK.

1. Yes, every time. 2. So as to prevent swarms absconding, and for convenience in hiving. 3. Just as soon as convenient, after she has begun to lay.—A. B. MASON.

No; I want no queens that cannot fly, any more than queens without legs.—C. H. DIBBERN.

1. Yes. 2. To keep her from going to the woods, and to facilitate hiving swarms. 3. As soon as she begins to lay.—M. MAHIN.

1. If I did not want her to fly, I would. 2. To prevent her flying. 3. The very first chance. I do not think that clipping is so prevalent as formerly.—J. M. SHUCK.

1. Yes. 2. To mark them, to control swarming, etc. 3. Any time after laying well.—P. L. VIALLON.

1. Yes. 2. So that she cannot lead swarms to the woods. 3. Generally in the spring, before the colony increases much in strength.—R. L. TAYLOR.

1. I have never clipped a queen's wing—and I do not know that I ever shall. 2. To aid in swarming. 3. As soon as she commences to lay.—WILL M. BARNUM.

1. That would depend upon the situation and surroundings of my apiary; if near heavy timber, or surrounded by tall trees, yes. 3. When my little scissors were sharp—almost any time before swarming.—MRS. L. HARRISON.

No, sir. I am opposed to clipping queens' wings. I know that excellent and successful bee-keepers clip them. There are advantages and disadvantages both ways.—JAMES HEDDON.

1. Indeed, I would. 2. So she cannot fly with a swarm. 3. The first time that I see her after she lays. If not before, certainly prior to swarming time.—C. C. MILLER.

1. I would not. Those who do, claim that swarms are saved by so doing, and much trouble avoided. I do not see it so. 3. I should clip the wings any time after fecundation had taken place; it makes no matter when.—J. E. POND.

1. Yes. 2. Because there are more reasons in favor of so doing than there are against it. 3. At any time, when you see the queens after they become fertile. I usually do it when apple trees are in bloom, because this is at the beginning of the season, and also because there are not so many bees in the way then as later on.—G. M. DOOLITTLE.

1. I do not now clip the wings of my queens, but I did formerly. 2. I do not now, because it is not necessary, as it is so far to timber (about one mile), that the bees never go away without first clustering near by. Did I live near timber, I would use queen-traps in preference to clipping.—G. L. TINKER.

1. Queens at the head of my honey-producing colonies (not my breeding queens), yes. 2. "Why?" Because I can manage the swarms with less labor, and without danger of loss of swarms, and especially as there are some trees of considerable height near my apiary. 3. In the early spring, when the colonies are at their smallest, when the queens can be most readily found.—G. W. DEMAREE.

1. That depends. If I were a woman, I would, always. If among high trees, it is a good thing to do so anyway. I think that it is a good practice, even for men, unless they like to try Franklin's method with the lightning, and bring them down with a kite. 2. It saves work at swarming time. The bees cannot abscond. You are more sure of the age of your queens. 3. Any time after the queen has mated.—EUGENE SECOR.

1. Yes; if near timber. 2. So that the swarms would return and thus save labor. 3. Soon after she begins to lay, or before swarming time.—THE EDITOR.

Convention Notices.

☞ The Northern Illinois Bee-Keepers' Association will hold its next meeting on Aug. 20, 1889, at R. Marsh's, in Guilford Township, 4 miles northeast of Rockford, Ills. D. A. FULLER, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec. Brantford, Ont., Canada.

What Makes the Summer?

It is not the lark's clear tone
Cleaving the morning air with a soaring cry,
Nor the nightingale's dulcet melody all the balmy night—
Not these alone
Make the sweet sounds of summer;
But the drone of beetle and *bee*, the murmurous hum of the fly,
And the chirp of the cricket hidden out of sight—
These help to make the summer.

Not roses redly blown,
Nor golden lilies, lighting the dusky mead,
Nor proud, imperial pansies, nor queen-cups quaint and rare—
Not these alone
Make the sweet sights of summer;
But the countless forest leaves, the myriad wayside weeds,
And slender grasses, springing up everywhere,
These help to make the summer.

One heaven bends above;
The lowliest head ofttimes hath sweetest rest;
O'er song-bird in the pine, and *bee* in the ivy low,
Is the same love, it is all God's summer;
Well pleased is He if we patiently do our best.
So hum, *little bee*, and low green grasses grow,
You help to make the summer.

—*Maricita Holley, in Queries.*

CORRESPONDENCE.

THE SEASON.

Swarming Out, Comb Surface Measuring, Failures, etc.

Written for the American Bee Journal

BY G. M. DOOLITTLE.

I am asked to tell why bees swarm out in early spring, upon the first really warm day which occurs, as they frequently do. This is a hard question to answer, for I have had them do so at times when I could see no cause for it at all. At other times I was satisfied that moldy combs, together with many dead bees upon the bottom-board, which emitted a foul odor, was the cause.

Again, when bees come near to starvation, in early spring, swarming out is quite liable to occur; for where there is anything about the hive which causes great dissatisfaction, the bees seem determined to see if they cannot better their condition, by leaving their uncomfortable quarters in the hopes of finding something more pleasant. So far all bee-keepers seem to agree, and were it not that I have had bees swarm out, when all about the hive was sweet and clean, with plenty of honey and brood in the hive, I might believe that I knew something certain about it.

In several instances I have had small swarms come out apparently under almost the same conditions which they do in summer, except they were not getting honey and pollen. Some try to account for this kind of swarming, by supposing that it always happens before any young bees hatch out in the spring, consequently when the old bees go out for their first play-spell, the queen is left alone, and not liking to be so left, she goes out after the bees. There must be some mistake in this, for I have had them swarm out many times when there would be many young bees that were so young that they were unable to fly, and would be left on the ground in front of the hive after the rest of the bees had gone, as we frequently see them after a swarm has issued in the summer time.

One thing I have noticed, however, that while we cannot fully account for the reason why bees thus swarm out, we can tell pretty nearly when they will be likely to do so. After a very severe winter, when the bees have suffered from being long confined to the hive, this thing is the most likely to occur; while after a mild winter, during which the bees have had frequent chances to fly, and have consequently wintered well, very little, if any, swarming out occurs.

Measuring Comb Surface.

There seems to be a confusion of ideas regarding what is meant, when the comb surface and square inches of comb are mentioned in our different bee-papers. As I understand it, when any one speaks of comb surface, he means the surface measure of the combs, measuring each comb on both sides, and multiplying the amount thus obtained for one comb, by the number of combs that there are in the hive. Thus, one Gallup frame gives a surface measure of 115 square inches on one side, and the same on the other, hence we have 230 square inches of comb surface as the amount contained by one frame. As I use nine of these frames in a hive, this gives 2,070 square inches of comb surface for the whole hive.

Now, for myself, I rarely use the term "comb surface," but nearly always speak of the number of square inches of comb which a hive contains. Thus, in speaking of the amount of comb contained in one of my frames, I say that it contains so many square inches of comb, the same as I would say that a board was so many inches long and so many inches wide, giving so many square inches, or so many feet. Surely, we do not measure a board on each side to tell us how many feet there is in it.

So when I say that one of my frames contains 115 square inches of comb, I measure the comb the same as I would a board, for one of my division-boards contain just as many square inches as does one of the frames. As I use nine frames in a hive, this gives me 1,035 square inches of comb, which amount I claim is sufficient for any brood-chamber, where we are working for comb honey.

Mr. Editor, if I am not right, will you please set us all right on this subject ?*

1889 Almost a Failure.

So far the present season has come the nearest to being a failure of any that I have ever passed through in my bee-keeping life, unless it was the season of 1869, and as that was the year in which I commenced to keep bees, I cannot tell just what might have been accomplished by a skillful apiarist.

The spring opened very propitiously this year, and kept so till May 20, when it came off cold and rainy, and continued so up to June 18, at which time we had a couple of days of warmer weather that let the bees out for a play-spell, for there was very little that they could do but play, as there was no honey in the flowers on account of the wet.

It soon began to rain again, and has kept it up for about one-half of the time ever since. For the past week, when it has not rained, the bees have got a little more than a living, for the weather has been very warm during this latter time; yet there is not a hive in the apiary which has five pounds of honey in it.

This warm weather has given me a chance to get started in the queen-business again, for to try to do anything at queen-rearing was only a waste of time and bees, as a rule, although I have succeeded in filling some orders.

Many things which have worked well in the past have failed to work at all this season, and among other things has been the getting of queens fertilized over a queen-excluding honey-board, as I described in my book. As I had in previous years sold my apiary short of bees, and used so many from my stronger colonies to start the queen-business early, I had not tiered any hives for extracted honey, till the basswood was in bloom, which may, in a measure, account for this failure in a time when no honey was coming in, and the bees using all their energy at brood-rearing when the weather would permit.

The queens have been allowed to hatch in the upper stories, the same as usual, but soon the bees would begin to persecute them, which would finally result in their death, and sometimes in a general row "up-stairs," in which many bees would be killed. Now, while this part has failed, the getting of nice queen-cells built above the queen-excluders has been a perfect success where the colonies so tiered were strong enough to occupy the upper stories as they should be occupied to do good work. In fact, I

never had so large a proportion of the prepared cups completed as I have had all along during this worst of all years.

The queens hatching from these cells have been splendid, but when it came to getting them fertilized, either in upper stories or in nuclei, it has been uphill work, for I never lost so many queens from nuclei in the same length of time as I have this year, that I remember of.

Basswood promises to be about one-half of a crop, according to the showing of buds. As these buds will open in a few days, I hope for better times in the near future.

Borodino, N. Y., July 3, 1889.

[*On each comb there are two surfaces, with cells extending down to the centre wall (or "mid-rib," as they call it in England), and a Gallup frame contains 230 square inches of comb surface, as Bro. Doolittle remarks in the first paragraph.

His second paragraph is clearly wrong. A board cannot be compared to a comb, unless it is two inches thick (or, if we may be allowed the expression, unless it is a "double board"). Then it would be calculated by "board measure," and both surfaces would be taken into the calculation, like the comb surfaces of the frame. While "we do not measure a *board* on each side to tell us how many feet there is in it," we invariably do measure or calculate both sides when that board becomes a two-inch plank—and more nearly resembles a frame of comb with two surfaces.—Ed.]

BASSWOOD.

My Management of Swarms in the Apiary.

Written for the American Bee Journal
BY MISS IDA HOUSE.

Basswood is very rich here; one colony brought in 12 pounds of honey on July 12. On July 10 we extracted 40 pounds of white clover honey from the same colony, and did not extract from the brood-chamber.

We find it almost impossible to get along without the queen-excluders. We have had a number of sections of honey spoiled by neglecting to put the queen-excluders on.

I am guarding against swarming all that I can, until basswood is done with. I take four frames of brood from a hive for a nucleus, put in four empty frames, and cut out all remaining queen-cells; as far as I have gone, this method works splendidly, but I find it impossible for me to get along very fast among so many bees.

My brother-in-law has charge of an elevator here, so he can help me only at night and morning with the bees. On July 7 we had 15 swarms, and also on July 10 we had 15 swarms; but with my sister's help, I hived them without the loss of one. We have not lost a swarm of bees for six summers.

All of our queens have their wings clipped, and when a swarm comes out, we go to the hive, pick up the queen, take out all the brood from the hive, and put in empty frames; then put the queen in front of the hive, and the bees will soon return, and go to work again.

Our colonies are all very strong, and in splendid condition. We could not ask for more favorable weather than we are having. When I have more time, I will tell how we winter our bees, which I hope will help some bee-keeper who is unsuccessful in wintering his bees.

Howard, Minn., July 13, 1889.

REARING QUEENS.

Results of Some Experiments in Bee-Keeping, etc.

Written for the American Bee Journal
BY FRANK S. JOHNSON.

On page 362 I related my experience in bee-keeping up to the hatching of the queens in my two nucleus colonies. Although I felt rather nervous as to the result of my experiment, for there were several queen-cells in each hive, still the first queen hatched must have destroyed the other cells, as there were no "second swarms."

The weather at this time came on cold and rainy, and in consequence I was uneasy about their welfare while on their "bridal tour." After about a week, however, one commenced to lay; but I could discover no eggs in the other hive. I waited a few days longer, and then, thinking that the "lady" had met with some mishap, I sent for a Carniolan queen, thinking that I would give that race a trial, as they are well spoken of as to their prolificness and comb-building abilities.

The queen came all right, but in the meantime the other queen that I thought was missing, began to lay, and she proves to be a fine one, for she has everything filled with brood.

I took two frames of brood from the old colony, and put the Carniolans upon the comb in a Peet cage, but through some fault of mine, the queen gnawed through the comb into the cage, and killed a few of the attendant bees. Of course, as I saw the dead bees at the entrance, I thought that my queen was gone; but upon examining the hive the next day, I found her moving around, and quietly depositing eggs.

I examined her again a few days ago, and found four and five eggs in some of the cells. What does that signify?

In this country we get no early surplus. There is very little fruit except wild plums, and no clover at all. Elms, box-elders, and cotton-woods furnish pollen. Just now (July 10) bees are storing a light, mild honey, but what they obtain it from, I am unable to determine. I supposed that it was sumac, but I have been unable to find any bees working on it, although there is any quantity of it in bloom near here.

After harvest is when we get our surplus. The stubble-fields will be fairly red over acres and acres of heart's-ease or smart-weed. The honey is rather dark, but of quite good flavor, and sells well.

I have 36 pounds nearly all capped over, in one-pound sections, on my old colony. One of my neighbors says that I will be the cause of all this county being covered with bees.

Two of my neighbors have already spoken for queens from my old colony. The record they made last year, and so far this season, causes every one here, who has bees, to want a queen from them.

I have sent for Mr. Doolittle's "Queen-Rearing," and propose to learn all that I can by experience and study, about the business; and perhaps sometime I may engage in the bee-business extensively.

Golden-Rod the National Flower

In regard to the National Flower: I think that it would be rather unjust to choose a flower that blooms only in certain parts of the United States, like the trailing arbutus; although this is much more beautiful and fragrant than the golden-rod, still, if I am correct, golden-rod is found in some of its varieties nearly all over the United States. We certainly have several varieties of it in great profusion here, making great golden masses on the prairies in all directions. I would speak for "golden-rod."

Campbell, Nebr.

[A good queen lays the eggs in regular order, and one in a cell. The presence of 4 or 5 eggs in a cell suggests that either the queen is a poor one (or drone-layer, as she is sometimes called), or that the hive contains laying workers.—Ed.]

JULY.

Clover — Absconding Swarms— Honey Crop, etc.

Written for the Western Plowman
BY C. H. DIBBERN.

Bees have swarmed a good deal, and there has been a good deal of trouble from absconding swarms. By careful watching and good management we have lost none by absconding, and have captured at least two swarms that were flying over and settled with swarms that we happened to have in the air. I now think that swarming is pretty well over, and the bees will now settle down to the more profitable business of gathering honey.

Absconding Swarms.

Now what causes a desire to abscond? Usually when but a few bees are kept, and swarms are kept entirely separate, and are properly hived in a good, clean hive, there is but little trouble on this point. What I mean by properly hived, is that the bees are not only shaken in front of the hives, but are kept stirred up till about all have run in. It will not do to leave them covering the outside of the hive, or to cluster under it, as in that case the queen may be outside, and perhaps not know that it is a hive at all.

It sometimes happens that when a swarm issues, the queen seems to become frightened and runs back into the hive, and still the bees will cluster on some branch just as they would if she was with the swarm. Now if they are hived they soon become uneasy, and generally dwindle away, either going back to the old hive, or going in with some other swarm just hived. Sometimes they will also go to a hive that has just swarmed, or one that is about to swarm.

When a swarm that has been hived a day or two comes out with a rush, you may be sure that they have a queen, and perhaps two or three. I believe what causes large swarms, that are perhaps parts of a number of swarms, to desert a hive is, that the question of supremacy of the queens is not decided, and one of them starts to leave the hive when all the bees speedily follow.

Usually when more than one queen is hived with a swarm, the bees speedily ball one, or all but one, and they are soon stung and killed. Such swarms usually remain without further trouble.

It is usually contended when a swarm once deserts a hive it is useless to put them back in the same hive in the same place. That is not my experience, however, as I have had quite a number leave their hives this year, and I have put them back just as they were, and they have generally stayed. Somehow the shaking and mixing up in swarming out and being rehived seems to settle the question of which shall be queen.

The Honey Crop.

Now that we are reasonably sure of a fair honey crop, the question comes up, what are we going to do with it? Now do not be in a hurry to get it off the hives before it is really ripe; hurrying it off to town to get ahead of somebody else, and sell it to the first store-keeper for anything he offers.

The white honey should be left on the hives till about the close of the basswood harvest, to fully mature. If more room is needed, add cases of empty sections by putting them under the full ones. Honey thus left on the hives may not be quite so white, but the quality is greatly improved. Then, too, the bees can take care of the honey much better than we can.

When honey is removed too soon, before all the cells are capped, it soon becomes leaky, the honey souring in the uncapped cells, and the appearance is greatly damaged. This is especially so in damp weather, but if left on the hives till the usually dry weather of the middle of July, it is all right.

Then there is the moth, always present, even on our snow-white honey, especially if it contains a few cells of pollen. Now if the honey is left with the bees, they will remove the moths as they hatch out, and when it is taken off, at the end of the white honey season, there are no more moth-eggs to hatch.

The Price of Honey.

Bee-keepers should remember that we have had almost no crops for two years, hardly honey enough to sell for the sugar we have had to buy to keep the bees alive. If we have a good crop this year, the next may again be a failure. Now why should we be in a hurry to get rid of the finest honey that the world produces? Judging from an experience of over twenty years, I know that the best honey cannot profitably be produced for less than 15 cents in the comb, or 10 cents for extracted. The late and dark honey, of course, must be sold for less. Keep up a reasonable price; that is the only thing that will make bee-keeping worth following. It is hard work, all know, and requires ceaseless watching and care, and why should we not be paid for all this?

If you have taken our advice to have the honey stored only in neat, clean new sections, between separators, you have something you need not be ashamed to ask and get a fair price for. Now before taking it to market, be sure and scrape every section of propolis, and pack it in new crates, with glass on at least one side.

Marking Crates of Honey.

Mark the gross weight, tare and net. This will save much trouble and quibbling. Your name and address should also be stenciled on the cases. Remember that if honey is properly ripened on the hives, and stored in a dry, warm place, it will keep; and if not all sold this year, it may come very handy the next.

Milan, Ills.

SELLING HONEY.

Do Not Sell the New Crop Too Soon or Too Cheap.

Written for the American Bee Journal
BY JAMES HEDDON.

Pleased at the partial improvement upon the past two seasons, many bee-keepers have been praising 1889 as a honey year. It begins to look plain to me, that, taking the country all over, we are not going to have an average crop, by considerable. The past two poor seasons have cleared the market of honey, and got consumers into the habit of paying better prices than formerly. As it is a fact that we need it to keep our business equally profitable with other lines, let us hold up to these prices.

In this location the season is not as good, up to this date, as were the past two very poor years. We have not one-sixth of a crop. Basswood is in full bloom, all of half passed, and not anything like an average yield so far. Clover bloomed profusely, but yielded very stingily. This ends the white honey crop.

Pleurisy-root is not yet plentiful enough here to produce surplus honey to much extent in so large apiaries as mine. It is just getting into bloom, and the bees are thick upon it, while they leave every other plant for the basswood. We can see the honey standing in the blossoms in little drops, and the bees crawling all over it, rapidly loading and going home. Only a few years ago we could not find a dozen plants within the radius of our apiaries. In a few years more, we expect it will yield us a good surplus crop, if nothing unforeseen happens.

Do not be in a hurry to sell your honey. What you do sell early, do not sell it cheap. Let us wait till we see that we have to.

Dowagiac, Mich., July 13, 1889.

HIVES.

Has the Ideal Hive Yet Made its Appearance?

Written for the American Bee Journal

BY J. W. TEFFT.

I have been called upon to explain more fully the frame that I employ in "The Ideal" hive, and take pleasure in doing so. I will also mention a few additional important points connected with the internal arrangements of the hive, and to correct an error which appeared inadvertently on page 347.

The description will at once show the applicability of the term "universal frame," by which I also designate it. The frames are composed entirely of wood; the top, bottom, and end-bars are at each corner, 1½ inches wide, the body of the bars being recessed to allow the bees a passage-way.

One of the longer bars is slit from end to end, to permit the easy and speedy adjustment of foundation for brood-combs. Each frame *spaces itself* when placed in the brood-nest. The frame is reversible and interchangable from the brood-nest to the surplus chamber, and *vice versa* in every hive in the apiary.

When empty, the same frame answers for a section frame, and thus is, *par excellence*, a universal frame, and preferable to any other heretofore in use.

I can, and do, use these frames in the same manner as a hanging or suspended frame, and am not compelled to reverse, but the advantage of being able to reverse those brood-combs which become clogged with honey, is simply immense.

I uncap the honey in one frame on one day, and in another the next day, reversing, placing the honey part down and the brood part up. The honey will then be at once carried by the bees to the sections in the surplus chamber, thereby freeing the brood-comb of honey more quickly, and better than can be accomplished by means of the extractor.

This gives the queen the room in which she desires to deposit her eggs, with a less number of brood-combs, and secures a gain of 50 per cent., at least, in this connection; the result being solid frames of brood and full combs of honey in the sections above. This procedure also completely upsets the swarming fever right away, and also keeps the bees all together in one large, powerful colony under perfect control.

When the comb at the outer sides of the brood proper is two-thirds filled with honey, I reverse the frames (do *not* uncap the cells), and the now upper portion of the comb will be entirely filled with honey in a very short time. As soon as this is accomplished, I remove them and lay them by for winter feeding. (Ripe honey is the only proper food for wintering bees upon. This fact cannot be too strongly insisted upon!)

The result just described cannot be accomplished with hanging frames. The apiarist who makes a specialty of extracted honey, will appreciate the advantages of having combs attached to all parts of the inside of the frames.

In early spring I find the interchangeable frame indispensable. My method is to fill two frames with sections of last year's combs, and place one on each side of the brood-nest as soon as there is any sign of a honey-flow. In this way I can determine whether the bees are bringing in honey, without disturbing the brood-nest.

When the honey in these combs is partly capped, is the right time to put the surplus chamber on, and I then lift these side-storing sections, bees and all, less the queen, into that chamber, and fill it with frames of sections and separators, replacing the two frames removed from the outside of the brood-nest with two of the sections containing foundation.

As the honey is being sealed in the surplus chamber, I reverse those frames, the combs in which are not filled to the bottom, and when at last completed, I remove one frame at a time, and replace it with one of the side-storing frames of sections, repeating this operation over and over again.

Another advantage of the interchangeable frame is that in wintering, should the four frames of stores in the surplus chamber not be quite filled with honey down to the bottom-bar, the frames are reversed, and the honey part placed in juxtaposition with the honey in the frames below, thus putting the feed in its natural and most convenient position.

My universal reversible frame is adapted to all known methods and systems, does not vary in size, and its dimensions are designed on the metrical system for sections, so that one frame may contain sections of different sizes. The frame is 15x10 inches, and will hold four sections of 7½x5, six of 5x5, eight 5x3¾, twelve 5x2½, or twenty-four 2½x2½; these latter for one-fourth pound honey-sections, or used as a queen-nursery cage. All the above sizes of sections can be contained in one frame at the same time.

The Ideal hive can be run for extracted and comb honey simultaneously, and indeed for all purposes.

On page 347, fourth paragraph, second column, I am reported as saying, "These surplus chambers have intermediate honey-boards or zinc queen-excluders between the honey-boards"—a very obvious error of expression, doubtless due to hurry and indistinctness of copy. I should have written, "No intermediate honey-boards or zinc queen-excluders between the brood-nest and the surplus chamber." My universal, reversible frames, with the separators between them when in position in the surplus chamber, form "The Ideal" honey-boards and queen-excluder, no extra furniture is required, and nothing whatever is intervened between the brood-nest and the surplus chamber to interfere with the worker bees' passing freely, easily and safely from the hive entrance to the very topmost sections. There is no fear of their scraping off the wax scales or paring off their wings or legs, such as undoubtedly exists under other circumstances.

I would suggest to those using zinc honey-boards and excluders, that they examine the edges of the apertures and bottom-board therein, with a lense. Perhaps they will discover something that they had not previously expected. "The Ideal" hive contains no such clumsy inconvenience as an intermediate honey-board or queen-excluder, and is not troubled with brace-combs!

"The Ideal" surplus chamber is composed of end and side boards, like a box with no top or bottom; but it is provided with a cross-strip at the bottom for the foot-corner of the frames to rest upon. The sides of the chamber are preferably supplied with movable portions, held in place by a simple contrivance. If desired, the movable parts may be of glass, for convenience in observing the bees at work on the sections. When these parts are removed, room is given to move the frames laterally, into or out of the chamber. This is of itself a very great convenience and advantage. The chamber will hold five frames exclusive of separators, and may be conveniently used as a temporary hive for summer or for a nucleus.

In winter, when placed above the brood-nest and surrounded by forest leaves, peet, moss, or other suitable material, and with a proper cushion over the top, it cannot be excelled as a means of warmth, at the same time securing absorption of moisture and efficient ventilation. The bees thus cared for on the summer stands will be comfortable in the severest weather, and the combs dry, pure and clean.

"The Ideal" separators are entirely of wood, and of the size of the frame. The separator is edged all around by a band, like unto the frame of a school-

boy's slate. The band serves the purpose of keeping the edges of the sections just bee-space from the body of the separator, thus allowing the bees free access to all parts of the chamber in the same manner as, though with better result than, by the use of four-open-side sections.

The development of "The Ideal" hive is the result of laborious thought and investigation, added to persistent and careful practical experiment during many years, and apiarists who have enjoyed the privilege of using it, are delighted with the result, and are pleased to speak of it as "the laughing success" of the Nineteenth Century, in the matter of apiculture.

MOVING BEES.

How to Prepare the Hives to Do it Safely.

Written for the Farm, Stock and Home
BY F. C. ERKEL.

I have had considerable experience in hauling and shipping bees, and I find that they will stand a great deal more moving than most people think. One time I moved 35 colonies 13 miles by wagon over the roughest roads I ever traveled; there were a number of log bridges we had to cross, and out of the 350 combs in those 35 hives only 3 were found broken, the greater part of those were only one year old, and I do not think more than 15 or 20 had wire in the frames.

To successfully move bees, the bottom as well as the top of the frames should be securely fastened, so they will not shuck together and kill the bees. To fasten the bottom of the frames, cut ten notches in a stick one inch wide, or just wide enough to correspond to the ten frames; or you might drive small nails through a thin strip in such a way that a nail will come between every two frames. Now, with smoker in hand, pry up the hive from the bottom-board, and give them a puff or two of smoke to drive them out of the way; then, before they get time to come down, slip the projection on the notched stick, or the nails between the frames, using one, or better, two of these sticks; let down the hive, and the frames cannot get out of place. I generally fasten the top of the frames by placing a thin strip of enamel cloth on top of them, and carefully shove, not pound, ½-inch wire brads through the strip and down into the frames.

If it is warm weather, and the bees are to be on the road for sometime, they must have plenty of ventilation. This must be regulated according to the weather. Sometimes it would be advisable to remove the enamel cloth and put a wire screen over the whole of the top; but, as a general thing, I pull back the enamel cloth two, three or four inches from the end and fasten wire screen over this opening. Do not nail up the entrance, but put wire-cloth over that too, which will give circulation through the hive.

If you move your bees by wagon, put a wood-rack on a lumber wagon, nail boards inside the stakes, and fill up the space about two feet with hay, and then place the hives on the hay with the frames crossing the road-bed. I consider the hay better than springs.

By following these instructions bees can be safely sent several hundred miles by express or freight; if to be sent by freight, however, I should place several thicknesses of old cloths wrung out in water, over a part of the wire-cloth. If they have young brood, they need water anyway.

Le Sueur Co., Minn.

CONVENTION DIRECTORY.

1889.	*Time and Place of Meeting.*
Aug. 3.—	Darke County Union, at Greenville, Ohio. J. A. Roe, Sec., Union City, Ind.
Aug. 20.—	Northern Illinois, at Guilford, Ills. D. A. Fuller, Sec., Cherry Valley, Ills.
Aug. 31.—	Haldimand, at Fisherville, Ont. E. C. Campbell, Sec., Cayuga, Ont.
Sept. —.—	Maine, at Livermore Falls, Me. J. F. Fuller, Sec., Oxford, Me.
Sept. 5.—	Erie County, at Buffalo, N. Y. O. L. Hershiser, Cor. Sec., Big Tree Corner, N. Y.
Dec. 4, 6.—	International, at Brantford, Ont., Canada. R. F. Holtermann, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Satisfactory Yield.—E. W. Grinnell, Casey, Iowa, on July 10, says:

The white clover yield has been very satisfactory here. At the commencement of the flow, the combs were entirely empty of honey; now combs and supers are well filled. White clover has come up thicker than before the drouth. The bee-keeper smileth, and is made glad by the change. Basswood will be a short crop.

Bees Have Done Well.—E. J. Hiatt, Chester Hill, O., on July 12, 1889, says:

Bees are doing very well here this season. White clover is abundant, but it is beginning to fail some. The best of the honey season is about over. I have 22 colonies in Simplicity hives, and winter them packed in chaff on the summer stands.

Best Season for Years.—Mr. L. Chandler, New London, Minn., on July 13, 1889, writes:

This is the best season, so far, for honey that we have had for several years. Nearly every colony of bees in this vicinity has swarmed, and the hives are filled with brood and honey. A part of mine have stored some in the sections from honey-dew. The basswood began to open yesterday. There are insects destroying the bloom here. At present the prospect is very promising for a good crop. The golden-rod is growing finely, and has no insects on it yet. I think that it is going to bloom earlier than common. It is my choice for the National flower.

Honey Crop Yet to Come.—H. H. Knapp, Danbury, Conn., on July 11, 1889, writes:

I started with 16 colonies of bees the past spring, and increased them to 25. I had more swarms, but I put them back again where they came from. White clover has been very abundant in Western Connecticut, but no honey, as it has been too wet for the secretion of any nectar. I do not believe that they stored five pounds of surplus during the white clover season. Breeding has gone ahead with a rush, and bees are working on sumac now, and have been putting in honey for the last three days. Our crop, if any, is yet to come.

The Union—Lucky Streak.—D. Y. Kennady, Batavia, Iowa, on July 11, 1889, says:

I send $1.00 to pay my dues as a member of the Bee-Keepers' Union. I have thought for a long time that I and all other bee-keepers should belong to it. My bees, as well as myself, are in luck this season; if the honey-flow remains as good as to-day, for one week longer. I will have at least 5,000 pounds of fine honey.

Sell the Honey at Home.—Geo. E. Hilton, Fremont, Mich., on July 18, 1889, writes:

Where is the surplus honey crop? Echo answers, "Where?" While a few reports are coming in, of a fair yield, it is very evident that the crop of white honey is going to fall far short of the average; but there is still a silver lining to this dark cloud, if properly manipulated. The large markets are entirely bare, prices are ranging high, and if we do not rush our honey (what we have) upon the market too early, we may realize a good price for it. Clover is practically gone,

and basswood is in full bloom, but neither has produced honey as in days of yore; but swarming has been above the average. The prospects are good for a fall crop, but I believe that all the honey produced in this State this season can be sold at the home market, and a better profit realized than to ship to the cities; in fact, this is the great mistake of bee-keepers in general; they seem to think it more business-like to ship to Chicago, New York or Boston, when the facts are that a little effort around home would realize them from 3 to 5 cents per pound more for their honey; and remember this is all profit, the first cost, or cost of production, must be paid before our margins begin. I certainly hope that the bee-keepers will profit by the lessons of the past, and thus get as much money from half a crop, as they usually do from a full one.

Basswood Rich in Nectar.—J. F. Eikenberry, Greene, Iowa, on July 16, 1889, writes:

Bees have been doing well ever since the white clover began to bloom, and the linden nectar is very rich and in great quantity in this locality. I started out with about 50 colonies, and have increased them to 69. I have a large quantity of honey almost ready to take off. I have taken 325 pounds of extracted honey, which is something unusual at this season of the year, in this climate.

Good White Clover Yield.—B. Volkering, East Farmington, Wis., on July 14, 1889, says:

Bees have been booming for the last month or more. I have some colonies each of which have filled 72 one-pound sections from white clover alone. I do not expect to get much honey from basswood, for the nearest trees are two miles distant. The buds are just beginning to open. I am well pleased with the AMERICAN BEE JOURNAL—in fact I could not get along without it.

Dragging Out Bees—Dummies.—Matthew Rebholz, Kane, Ky., on July 13, 1889, writes:

1. What was the matter with my bees? The first week in May one of my colonies dragged out young, live bees, and piled them up in front of the hive. These young bees were apparently just hatched. The next day 2 other colonies did the same, and so it went on through my whole apiary of 14 colonies. The dragging out lasted about two days. Now what was the reason of it? 2. Since I have been reading the BEE JOURNAL, I came across the word "dummies," and as I am yet somewhat young in bee-keeping, I would like to know what is meant by it.

[1. They were short of stores, and destroyed the brood to prevent destitution and starvation.

2. A "dummy" is a close-fitting division-board, used for contracting the brood-chamber when that is desirable.—ED.]

Bees on Scales.—E. E. Smith, Clayton, Mich., on July 12, 1889, says:

I received the new scales all right, and I am well pleased with them. I put a colony of bees on the scales this morning early, and they gained 16 pounds for their day's work.

[That is a good day's work for one colony.—ED.]

Caring for Honey—Uniting.—Judge Ware, Maywood, Ky., asks these queries:

Please answer the following questions: 1. After taking the honey from the hive, what is the best plan to take care of about 200 pounds for family use? that is, to protect it from the wax-moth, ants, etc.? 2. How shall I proceed to break up a colony of bees, and give them to 10 other colonies? I want to give each one of the 10 a frame of bees and brood to strengthen them.

[1. See page 454 of last week's issue. 2. Sprinkle all the colonies with peppermint water, and then give them each the desired frame.—ED.]

Sweet Clover and Figwort.—L. R. Williams, Paris, Texas, on July 8, 1889, writes:

1. I send a piece of a plant—we call it "bee-clover." It grows from 4 to 6 feet high, and comes up early in the spring from the old stalk (or roots). 2. I send one piece of another plant. It has large leaves. Please give the proper names, and which is best for honey, if either are good.

[1. The first plant sent by Mr. Williams is common sweet clover, or melilot. 2. The other is figwort. Both are most admirable honey-plants. I doubt if any plant is better for bees than sweet clover.—A. J. COOK.]

Healthfulness of Bee-Keeping, etc.—John B. Davis, Council Hill Station, Ills., on July 15, 1889, writes:

During the five years I have kept bees, my health has been good, but for 20 years before, at times I suffered from indigestion, and paid many dollars for medicine which often did no good. I never used honey until I kept bees; now I eat lots of it, and I think that the honey has wrought the change. I had 7 colonies in the spring, and have 12 now. I have extracted 550 pounds of nice white clover honey, and in a day or two I will extract about 200 pounds more. I made a solar wax-extractor as described in the BEE JOURNAL, and it does its work so well that when I see the wax running into the pans, I feel sorry that I did not make one before.

Bee-House—Good Season.—H. A. Morgan, Brazil, Ind., on July 11, 1889, says:

I have 35 colonies of bees in good condition. They are doing better here this year than for 4 or 5 years. I have a bee-house, and it is a success.

A Profusion of Bloom.—Milton Newlin, Georgetown, Ills., on July 12, 1889, writes:

I send a flower to be named, as the bees love to work on it early and late, and it continues to bloom for quite awhile. I have some Chapman honey-plant nearly ready to bloom. It looks excellent. Linden bloom is almost a failure in this locality. White clover has been very good. I had some Alsike clover, and the bees kept a perfect hum all the day long on it, for quite awhile.

[The flower is one of the asters—excellent for honey.—ED.]

A Swarm on a Carriage.—Wm. Oldfield, Tickfaw, La., writes:

As a most curious instance of selection by bees, of an object to settle on, I will tell you of what I saw in New Orleans on April 4. I was standing on the gallery of the St. Charles Hotel, when, seeing a large crowd gathered around a hack, I thought there must have been an accident, and went down to the street to ascertain, and was considerably surprised to find that the attention of the crowd was attracted and retained by observing a very large swarm of bees which had settled on the handle of a carriage which stood immediately opposite the St. Charles Hotel. The bees were entirely good-

natured, and though hundreds of people had gathered around, notwithstanding the angry remonstrances of the hack-driver. No one, I believe, was stung, neither were the horses. The driver, having procured a sugar-keg, succeeded in housing the swarm without accident, which he deposited inside of his vehicle, and, mounting his box, drove off with his novel fare, that doubtless will not forget to richly pay the bill for transportation when their coupons mature in the fall.

An Immense Honey-Flow.—H. S. Hackman, Peru, Ills., on July 16, 1889, says:

There are now but a small number of colonies of bees in this locality, but the honey-flow is immense at present. Bees have swarmed a good deal, except mine (for a lack of honey-flow at a certain time after fruit-blossom) have failed to swarm, and are now strong and doing well.

Honey in California.—P. W. McFatridge, Ontario, Calif., on July 8, 1889, writes:

It seems that there will be a short honey crop here this year. One of my neighbors, three miles away, got 100,000 pounds of extracted honey last year, which he sold at 6 to 6½ cents per pound at wholesale; $6,000 is not so bad from 600 colonies. I have 10 colonies, and expect to increase them to 10 more before next spring. I think that my bees brought in honey and pollen every day last winter. We do not have to fuss with bee-cellars and chaff hives here. The cheapest kind of hives with a board on top, with a stone on to keep it from being blown off, is all that our bees ask of us. The honey product of this county, last year, was 435 tons. How is that for *one county?*

Bee-Keeping in Florida.—W. S. Hart, Hawk's Park, Fla., on July 12, 1889, writes:

In January and February the season promised well, and the bees gathered some honey, but brood-rearing was behind the average year. In March our usual drouth came, and stopped the preparations for swarming, so that very little increase by swarming was made, and as the hives were full of brood—13 and 14 Langstroth frames of it in several of my hives—they used up honey very rapidly, and soon required feeding. I gave my 96 colonies about 2½ barrels of honey, saved over for that purpose, which carried them through. In May they began to gather from saw-palmetto, and other sources, and on June 14 I began extracting, and took about seven barrels. They filled the hives about half full again, and then the flow checked up, and has been very light ever since. The black mangrove is now opening, and although it is very late for it, we still hope for a fair crop from it, as it promises a very full bloom. The bees generally are hardly in as good condition to work upon it as usual—in fact I know of no one within ten miles of here who has taken any honey thus far, besides myself.

Bright Prospects.—John Krahl, St. Joseph, Mo., on July 10, 1889, says:

My 50 colonies of bees are doing finely, and the prospect is bright for sometime to come, as we had a good rain last night, which will put new vigor into white clover and other flowers.

Less than Half a Crop.—B. H. Standish, Evansville, Wis., July 16, 1889, says:

The white honey harvest is practically closed here. We had a full bloom, but of short duration, and little honey. Comparing it with 1886, I find that then I extracted eight times, and this year but three times. The comb honey product doubtless will not compare as favorably. So it is safe to say that we have less than three-eighths of a full crop. I have kept bees for ten years, and now have 300 colonies.

White Clover—Little Honey.—J. C. Zimmermann, Wabash, Ind., on July 16, 1889, says:

Bees wintered well here, but cool weather in fruit-bloom kept them from gathering much stores; quite a drouth followed, and after that we had a very wet and cold spell, so that quite a number of colonies had to be fed—in fact some bee-keepers (?) left some to starve at that time. But since about June 12, it has been tolerably fair weather for the bees. There is more white clover here than I ever saw before, but for as much white clover as there is, I never saw the bees work on it less than they do this season. They seem to work on the linden more than on anything else. There were several days of rain again, so that bees could not get out at all. The plentiful rain keeps up the white clover right along; if it only would yield a little more honey. The honey crop will not be what was anticipated in the spring. I do not think that it will be over half a crop, from present indications.

Swarms Prevented.—L. Wayman, Chanute, Kans., on July 15, 1889, writes:

I extracted 68 pounds the day after receiving a honey-extractor. My bees are doing well. I started in the spring with 23 colonies, in different kinds of hives, in all kinds of shapes; I transferred them into hives that are large, the brood-frames being 13x14 inches, with a super above. It holds nine brood-frames 1½ inches thick. The super holds 42 one-pound sections, 4¼x4¼. The result is that I have not had a swarm this season. I think that bees will not swarm so much in these hives.

Extraordinary Honey-Year.—S. H. Burgess, Chesser, Ala., on July 15, 1889, writes:

We have had an extraordinary year for honey. Bees have gathered large quantities of nectar, and increased wonderfully; the honey is of extra quality. The movable-frame hive has moved forward beyond expectation, and the old-fogies declare it an improvement worthy of great honor. Honey "slinging" is now the talk.

The Season in Ohio.—L. G. Reed, Kent, O., on July 12, 1889, says:

What is the matter with Ohio? In looking over the different reports I observe that there is a dearth of reports from this great State. I put 45 colonies into winter quarters, and lost one from starvation, and 5 from being queenless, which left me 39 colonies; 15 of those were only strong enough to cover from 2 to 6 frames. They built up rapidly during the latter part of April and the forepart of May, but dwindled heavily during the last two weeks of May and the first week in June, on account of cold, rainy weather; but since that time they have built up rapidly, and many of them have cast swarms, but they have not stored honey in the surplus cases anything like what they ought to have done, considering the amount of bloom. What the season will develop yet, is among the uncertainties, and will be reported later on. I like the AMERICAN BEE JOURNAL above all bee-literature, and always enjoy *solid comfort* in reading it. May its editor live long, and be healthy, wealthy and *happy*.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future referenee. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

New Posters for the AMERICAN BEE JOURNAL, printed in two colors, have just been printed, and will be sent free to all who can use them. They are very handsome, and will "set off" an exhibit at Fairs. It will tell Bee-Keepers how to subscribe, for "Subscriptions Received Here" is quite prominent at the bottom.

We will also send sample copies of the BEE JOURNAL, for use at Fairs, if notified a week or ten days in advance where to send them.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Illustrated HOME JOURNAL

An Elegantly Illustrated Monthly for the

FAMILY AND FIRESIDE,

At $1.00 a Year.

Printed in the highest style of the art, and profusely embellished with Magnificent and costly Engravings.

The Illustrated Home Journal is a moral, high-toned and intellectual educator, and is invaluable in every library, as well as a very attractive and inspiring ornament in every drawing-room. Each Number of it contains 36 pages.

Its stories are elevating in tone, as well as charmingly thrilling and captivating; its historical and biographical sketches are fascinating and delightful; its Department for "Our Young Folks" is enticing and alluring; and its miscellaneous matter leads to the higher life, and the moulding of more beautiful thoughts and affections.

It should be found in every family, and should take the place of the impure and trashy publications, which now abound, and are a curse to the rising generation.

One Dollar a Year.—It is now demonstrated that the ILLUSTRATED HOME JOURNAL will attain a very large circulation, and so we have concluded to reduce the subscription to the popular price of *one dollar a year.* This change will take effect at once, and we shall give all our subscribers the benefit of this reduction, from the commencement of their subscriptions.

A Gold Watch Given Away.—To any one (lady or gentleman) who will send us fifty subscribers, we will give a nice **Gold Watch**—(instead of all other premiums and offers). It will be an Elgin Movement, Stem-Winder, Stem-Setter, and have a finely-engraved Gold-filled case (warranted to wear 15 years), and all of the most modern improvements.

We invite you to send to us, and secure your town, village or ward of city, as a field to work in, giving us the assurance that you will occupy it, and then we will give you the exclusive territory. We will send you circulars, subscription blanks, and sample copies, free of charge. You will then be ready to begin work and get the fifty subscribers. Should you fail to get as many as fifty, you can send 25 subscribers and $10 extra for the watch; or 10 subscribers and $16 extra.

You cannot fail, in this way, to get the watch, even if you do not complete your club. But with such a valuable and interesting periodical at a dollar a year, fifty subscribers can easily be obtained in every town or village. Just try it and see how easy it is to do so.

Now for earnest work and good pay for it! A nice Gold Watch for every one who will give a few days' work for it!

The ILLUSTRATED HOME JOURNAL will be clubbed with the American Bee Journal and both mailed to any address in the United States and Canada, one year, for **$1.75.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, - CHICAGO, ILLS

Honey and Beeswax Market.

MILWAUKEE.

HONEY.—Old crop nearly gone, and new begins to appear, the quality being fine. We quote: New white 1-lbs., 15@16c. Extracted, white, in barrels and kegs, 7@8c.; in tin and pails, 7½@8½c.
BEESWAX.—23@28c.
July 16. A. V. BISHOP, 142 W. Water St.

KANSAS CITY.

HONEY.—Old crop all gone. New 1-lbs., 16@18c.; 2-lbs., 14c. No California comb in the market. Extracted, white, 9c.; amber, 7@8c.
July 17. HAMBLIN & BEARSS, 514 Walnut St.

CHICAGO.

HONEY.—New crop is appearing, and prices range from 15@17c. An active market is not looked for till later. Extracted, new crop, 7@8c. Very light receipts, and few sales.
BEESWAX.—25c.
July 11. R. A. BURNETT. 161 South Water St.

CHICAGO.

HONEY.—Old crop of 1 and 2 pound white clover honey exhausted, but considerable 1-lb. buckwheat is being offered. Our first receipts of new 1-pound white clover were in this week, and is selling at 14@15c.; dark 1-lbs., old, 10@11c. Extracted, dull, 6@8c.
BEESWAX.—25c.
July 11. S. T. FISH & CO., 189 S. Water St.

DETROIT.

HONEY.—No attractive honey in the market, and sales are slow at 12@15c.
BEESWAX.—24@25c.
June 22. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—New white comb in 1-lb. sections sells at 16@17c. White extracted, 7@7½c.; dark, in barrels, 6c. An active demand is not expected before Sept. 1. No new extracted in the market.
BEESWAX.—None in the market.
July 20. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Extracted, bright, 6½c; dark, 5½c. The market is slow.
BEESWAX.—Scarce at 23c. for prime.
July 20. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—Extracted in good demand. We quote: Fine orange-bloom at from 7@7½c.; off grades of Southern, 60@70c. per gallon.
BEESWAX.—Scarce, at 26½@27½c. for good.
HILDRETH BROS. & SEGELKEN,
June 6. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—Not a case of comb honey in our store—something unknown for a long time. Expecting the new crop every day. Price will be about 18c. We have some new Vermont extracted white clover, which sells at 8@9c.
BEESWAX.—None on hand.
July 10. BLAKE & RIPLEY, 57 Chatham Street.

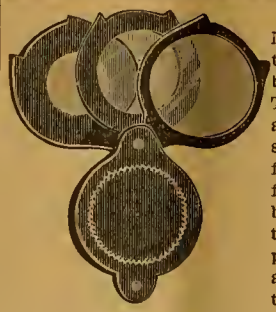
CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb., and 12@15c. for fair to choice comb. Demand slow, and arrivals are fair of the new crop.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
July 13 C. F. MUTH & SON, Freeman & Central Av.

Always Mention your Post-Office, County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Alfalfa Clover.—For cultivation of this honey-plant, see page 245, of 1888.—We supply the seed at the following prices:—Per lb., 22c.; per peck, $3.00; per half-bushel, $5.50; per bushel of 60 lb., $10.00. If wanted by mail, add 10 cents per pound for bag and postage.

Cheap Extracted Honey.—We have a keg of DARK HONEY, weighing 164 pounds, net, suitable for feeding to bees, which we will sell at **6 cents** per pound, delivered on the cars here.



Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

Hastings' Perfection Feeder.—This excellent Feeder will hold a quart, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

Many Good Advertisers invite our readers to send for their descriptive Circulars, etc. It will pay to get these, and see what is for sale, by whom, at what prices, and what things are offered. Every one can learn something in this way. Please always tell advertisers *where* you saw their cards; they like to know, and we like to have them.

Prang's National Flower is the title of a beautiful pamphlet which contains two colored plates of the two most popular candidates for selection as the National Flower of America. It also has two poems, and a postal card addressed to Messrs. L. Prang & Co., Boston, Mass., with a vote to be filled up for the selection of a National flower. The pamphlet costs 25 cents, and can be obtained at this office.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; sent by mail, add 1 cent each for postage.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

☞ The Darke County Union Bee-Keepers' Society will hold a meeting at Greenville, O., on August 3, 1889. J. A. ROE, *Sec.*

Advertisements.

PRICES REDUCED.

UNTESTED QUEENS, 65 cents.—10 for $6.00. Select Tested, $1.50. One and 2 cent Stamps taken when Money Orders cannot be had. Make Money Orders payable at Nicholasville. Can send by Return Mail.

July 1st, 1889. **J. T. WILSON,**
LITTLE HICKMAN, Jessamine Co., KY.
28A2t—30Etf
Mention the American Bee Journal.

NEW ONE-POUND HONEY PAIL.

THIS **new size** of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **Price, 75 cents per dozen, or $5.00 per 100.**

THOS. G. NEWMAN & SON,
923 & 925 West Madison-Street, - CHICAGO, ILLS

The Hive and Honey-Bee, and Dadant's Foundation. See advertisement in another column.

ITALIAN BEES and QUEENS.

ONE Untested Queen, 75 cts.; 3 for $2; one Tested Queen, $1.25. **BEES by the Pound and Nucleus. H. G. FRAME,**
10E13t NORTH MANCHESTER, IND.
Mention the American Bee Journal.

THE BEE-KEEPERS' REVIEW

A **50-CENT MONTHLY** that gives the cream of Apicultural Literature; points out errors and fallacious ideas; and it gives, each month, the views of leading bee-keepers upon some special topic. **Three Samples Free.**

W. Z. HUTCHINSON,
26Etf 613 Wood St., FLINT, MICHIGAN.
Mention the American Bee Journal.

A Year among the Bees,

BEING

A Talk about some of the Implements, Plans and Practices of a Bee-keeper of 25 years' Experience, who has for 8 years made the Production of Honey his Exclusive Business.

BY DR. C. C. MILLER.

Price, 75 cents, by mail. This is a new work of about 114 pages, well-printed and nicely bound in cloth. Address,

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THE AMERICAN BEE JOURNAL CIRCULATES ALL OVER THE WORLD

PUBLISHED BY THOS. G. NEWMAN & SON, CHICAGO, ILL.

THOMAS G. NEWMAN, EDITOR.

Vol. XXV. Aug. 3, 1889. No. 31.

EDITORIAL BUZZINGS.

Let those Who Think that bees will take glucose and put it in the surplus apartment of the hive, so as to be parties to a fraudulent transaction, just try them now. They will not touch it even for food, as long as honey is to be gathered from the flowers. Those who assert that bees will take such stuff when honey is to be had, are ignorant of the habits of the bee.

Mr. E. C. Jordan is dead. On page 339 we stated that Mr. Jordan was bitten on the hand by a pet squirrel. The swelling made amputation necessary. It resulted in death on July 15. He was 66 years of age. He was buried on Tuesday; the Rev. Mr. Dame, of the Episcopal church of Winchester, Va., officiating. He was a generous-hearted brother—always ready to help the needy, and to administer substantial comfort to those in distress. He is greatly mourned by the whole community, and all who knew him far and near. We condole with the widow and family in their bereavement.

The Failure of the Honey Crop in Southern California, this season, is a subject of much discussion in that region.

The Pomona *Progress* publishes reports from the bee-ranches on the mountain sides throughout Los Angeles, San Bernardino and San Diego counties. It is found that even less than one-seventh of an average honey supply will be had in this region this year.

Several bee-ranches which usually have 100,000 pounds of honey each year, will not have 10,000 pounds this year. The general opinion as to the cause of the failure of the crop, is that the heavy rains, early last spring, started the blossoming of the sage, which did not secrete the usual quantity of honey because of the cool nights and damp days for three weeks in succession.

Showing their Colors.—It is encouraging to notice the enthusiasm that is being kindled in favor of the National Bee-Keepers' Union, since the decision in the Arkadelphia case. Mr. B. B. Lee, Manning, Iowa, on July 18, 1889, writes as follows:

I take great pleasure in becoming a member of the Bee-Keepers' Union since its most noble defense in the Arkadelphia case. It is true, "In union there is strength," and I think all bee-keepers should come to the front and support liberally the defender of our business. I have 54 colonies of bees doing quite well.

Mr. R. McKnight, of Owen Sound, Ont., on July 20, 1889, writes thus:

Enclosed please find a dollar for membership fee of the Union. Hitherto I have looked upon it as having no claims upon my support: believing it to be a kind of selfish combination somewhat akin to Trade's Unions—to which I am opposed. Indeed, I scarcely glanced at what was printed relating to it, until that masterly defense in the celebrated Arkadelphia case appeared in the AMERICAN BEE JOURNAL a week ago. *That defense is worth a dollar to every bee-keeper in the land.* The judgment that followed it established a *precedent of great importance* to bee-keepers, and will probably be quoted in the courts through generations to come.

Having once had the honor of defending the industry in a "mock trial" on the "high seas," the defense of the Union's eminent counsel was especially interesting to me. Had the pamphlet containing it been in my possession then, what a reputation I might have made for myself as an amateur lawyer among my fellow passengers, from the product of another man's brains.

Brother McKnight ought to have carefully read the printed matter emanating from the Union before concluding that it was a selfish organization akin to Trade's Unions! Such a Union as that could not have enlisted our energies; but we have given them in unstinted measure to the Union for the defense of our pursuit. It is a pleasure to see that our efforts as Manager are being appreciated. Every bee-keeper who is worthy of the name, should now, without delay, become a member of the Union, just to show on which side he or she belongs. What the Union has already done is a guaranty for the future. Reader, if you approve of its acts, send the membership fee (one dollar only), and be enrolled among those who have borne the burden so far, and, like the Royal Huzzars, "have never been beaten."

The Weather in Massachusetts is thus described by Henry Alley, of Wenham, Mass., on July 24, 1889:

We have the poorest weather for queen-rearing—rain all the time. When no set storm is in progress, then we have almost daily showers; each one giving from one to two inches of rain. Everything in the apiary is wet, and as nasty and uncomfortable as can be.

An Entrance Regulator, made of tin, with two slides, the whole to be tacked on the front of the hive, comes from H. O. Kruschke, Deuster, Wis.

A Full Crop of Honey is generally reported, but there are localities where the crop is *very small*, and others where "no honey so far" is the report, averring that it is "the poorest season since 1866," etc. Truly our country is a large one, and the climatic conditions are as varied as any could desire. New honey is now being received in all the metropolitan honey markets. See new reports in this issue.

Since the above was written, the appended letter has come to hand from Mr. W. D. Wright, of Altamont, N. Y., and dated July 24, 1889. He says:

FRIEND NEWMAN:—Do not cry "large honey crop" too loud. Undoubtedly there has been a good yield in some of the Western States, but in this section, we "got left" on white honey. Basswood and clover blossomed profusely, but the weather has been almost continually cool and wet, so that bees could not do much. They swarmed moderately this season. I have not taken off a pound of surplus honey yet, and have but little anywhere near ready to take off. The prospects for buckwheat are not extra.

I am glad to hear of the continued success of the Union. Why do not more bee-keepers support it?

Our correspondents in the Northwest have simply informed our readers about the honey crop in their localities, and stated that they had a good crop, so far, with excellent prospects for a good fall yield. In other localities, where the crop did not materialize, bee-keepers generally did not report. Now they are beginning to speak out, and we need this state of affairs to bring in such reports. We want all the facts in regard to the honey crop, in order to determine its value and importance.

Doolittle's Methods of Queen-Rearing, as detailed in his book, are being tested in many apiaries this season, but the main experiments will be made next year. Concerning this matter, Mr. Doolittle remarks as follows on July 20, 1889:

You will remember that I mentioned in my book, of having a desire that the plans which I have given may be improved upon, and bee keepers led out to a wider plain than any heretofore enjoyed. It is now evident to me that at times of scarcity in the forepart of the season, or in localities where honey comes in very slowly during May, June and July, that the plan as given in my book for getting queens fertilized, will not always work; but where honey comes in with a rush, as it does with us in basswood, and perhaps at the end of the season in all localities, it is all right; for I am now having the same success in getting queens to laying over a queen-excluding honey-board that I formerly had, and I doubt not that this will continue to the end of the season. Honey from basswood has not come in so plenty as in former years, yet the plan works equally well.

Our honey crop will be light in this locality, for the basswood is nearly done, and I have not taken off 10 pounds of honey. I hope that teasel may help us out a little.

One-Third of a Crop is all that is reported by G. M. Doolittle, of Borodino, N. Y., and he adds: "The honey season is over now in this section." We are sorry to hear such a discouraging report.

GLEANS OF NEWS.

Why Bees Desert their Hives.—The inexperienced often ask why bees desert their hives. The following from an exchange will give some of the reasons in detail:

When bees swarm during a hot day they get very warm with the excitement and exercise, and sometimes the sun shines directly on the cluster. If they are then put into a hive that has stood in the sun, and has but little ventilation, who can blame them if they leave it and seek cooler quarters? If a newly hived swarm is left in the sun, it will desert the hive.

I once had a large swarm desert its hive the next morning after hiving. When it was hived it was placed in the shade, but the morning after was very warm, and the sun shone directly upon it, when it came out and left without clustering. I once hived the same swarm four consecutive days; each day they came out and clustered. At last I put them into a different hive, and they stayed all right. On examining the hive that they had deserted, I found it to be a clean, new hive, but the entrance was so small that a drone could enter with difficulty; therefore it was evident the swarm deserted rather than suffocate for want of air.

A bee-keeper was once puzzled to know why all his swarms deserted, as they were put into clean, new hives. On investigating, he ascertained that his new hives had the odor of kerosene; they had been manufactured during the winter and stored in the back-room adjoining his grocery, where were stored barrels of kerosene and other supplies, and the hives had imbibed these odors. The smell of kerosene is very distasteful to bees; I drive off robbers when they are attacking a hive by rubbing it over all places of attack, when they leave quick.

Hives that have been used, and the combs left to be eaten up with moths, should be thoroughly cleansed. When a colony dies from any cause, I prefer to cleanse the hive thoroughly, and rinse with boiling water.

Hives accumulate dust while standing, and before I put in a swarm I rinse it out with cold water, which freshens and cools it. If a swarm is put into a clean hive and properly shaded until it is well established, it will seldom desert.

The Nameless Bee-Disease.—Letters are coming in almost constantly, complaining of an unknown disease which is affecting the colonies. The symptoms given are always identical to the symptoms given in the A B C book, under the head of "Nameless Bee-Disease." It is pretty evident that this trouble is getting to be more and more common. Fortunately, however, it is not a serious one. The removal of the queen, so far as we have ever known, always effects a cure. For the benefit of a good many who do not know how to recognize the disease, we give the symptoms here: The bees have a swollen appearance—that is, the abdomen is distended. The fuzz is entirely worn off, and the bee itself has a black, shiny appearance, very much unlike a healthy bee. And just as soon as they become a burden to the colony the healthy ones boost them out of the entrance, where they may be seen crawling around in the grass, as if equally desirous of ridding the colony of their miserable presence. You will find quite a good many bees, doubtless, dead at and around the entrance—bees that have died from this trouble. We make this statement so that we may be saved the trouble of answering correspondents.—*Gleanings.*

Mailing Bees to Canada.—We are requested to print the order from the Post-Office Department, relative to the transmission of "queen-bees and their attendants" to Canada. Here it is:

POST-OFFICE DEPARTMENT,
OFFICE OF FOREIGN MAILS,
WASHINGTON, D. C., July 14, 1888.

The Canada office having assented to the proposition of this Department to admit to the mails exchanged between the United States and Canada, packages of Queen-Bees and their attendant bees, when so put up as to prevent injury to those handling the mails, while at the same time allowing an easy verification of the contents; packages of Bees will hereafter be entitled to transmission by mail to Canada, provided they conform to the conditions prescribed for them in the domestic mails of this country; and similar packages received in the mails from Canada should be promptly forwarded to their destinations and delivered to addresses.

By direction of the Postmaster General,

NICHOLAS M. BELL,
Sup't. of Foreign Mails.

Of course these packages are subject, upon their arrival in Canada, to all the Canadian customs, regulations relative to importations from the United States. But of these we are not advised, except to know that bees, like all animals for breeding purposes, are not subject to duty. Perhaps D. A. Jones & Co. can enlighten our correspondent as to the wording of such regulations. We have asked them, by private letter, to do so.

The Hancock County Fair will be held at Greenfield, Ind., Aug. 20 to 23, inclusive, 1889. Premium lists can be obtained of the Secretary, Chas. Downing, of Greenfield, Ind. Mr. A. Tyner, who intends to make an exhibit, sends us the list of premiums, which, though not very extensive, are as follows:

Crate of comb honey in the most marketable shape, and not less than 20 lbs.	$2 00	$1 00
Two dozen packages of extracted honey, in the most marketable shape, not less than 20 pounds	2 00	1 00
Largest display of honey of all kinds, the product of one apiary, present season, including all entries	5 00	2 00
Largest exhibition of bee-keepers' implements and supplies	Diploma.	
Most complete plan for wiring frames by hand, and placing foundation in or on the same	Diploma.	
Surplus arrangement for taking comb honey	Diploma.	
Bee-hive	Diploma.	
Display of appliances and fixtures in actual use, any one apiary	2 00	1 00
Five pounds of beeswax	75	50

Cure for Insomnia.—A Swedish servant-maid, finding that her mistress was troubled with sleeplessness, told her of a practice of the people of her country who were similarly afflicted. It was to take a napkin, dip it in ice-cold water, wring it slightly and lay it across her eyes. The plan was followed, and it worked like a charm. The first night the lady slept four hours without awaking, something she had not done before for several months. At the end of that time the napkin had become dry. By wetting it again she at once went to sleep, and it required considerable force to rouse her in the morning.—*Selected.*

Why Bees Destroy the Brood.—The New York *World* has this to say about the spring weather, the honey crop, and why bees sometimes destroy their brood:

The season of 1889 opened very bright for bees, and the general prophecy was "a good honey season," but with the middle of May came a change of weather, with cold rains and frosts, which are very damaging for the bees at that season of the year. The results have been that instead of the bees storing honey, bee-keepers have quite generally had to feed their bees to keep them from starving; many colonies having starved when not cared for; especially swarms which came out before the cold weather, as they did in many places.

The first signs that a colony is getting short of honey in the breeding season, is to find the drones being killed off. If they are not fed, they soon tear the drone-brood from the cells, and after having sucked all the juices out of it, the remnant is cast on the alighting-board. When bees get so short of honey as to do this, brood-rearing ceases almost entirely, and the apiarist is very short-sighted indeed that allows his colonies to get in this condition, for the brood which is then being reared is to make the bees which are to gather the honey.

If the bees are not fed, and the weather still continues to be bad, the bees next treat the worker-brood in the same way they did the drone-brood; soon after which all starve, although the bees can be revived by pouring warm honey or syrup on them, after nearly all of them have become so near dead that they can scarcely move. The bees may be worth saving if they are found in this last condition, but to think of getting any surplus honey from that year is out of the question.

New Posters for the AMERICAN BEE JOURNAL, printed in two colors, have just been printed, and will be sent free to all who can use them. They are very handsome, and will "set off" an exhibit at Fairs. It will tell Bee-Keepers how to subscribe, for "Subscriptions Received Here" is quite prominent at the bottom.

We will also send sample copies of the BEE JOURNAL, for use at Fairs, if notified a week or ten days in advance where to send them.

Another Opinion to be put upon record concerning the Doolittle book, is the following from the *Practical Poultryman*, the apiarian department of which is conducted by that excellent apiarist, Mr. Willis M. Barnum. He says:

"Scientific Queen-Rearing, as Practically Applied," is the title of a new bee-book by Mr. G. M. Doolittle, that veteran among bee-keepers, who has made the *practical* side of bee-keeping his hobby for more than twenty years. Probably no other one person has written so much upon the subject of bee-keeping as this prince of bee-keepers! The book is nicely gotten up, and details Mr. Doolittle's method of rearing queens according to Nature's way. The price is $1.00, and it is published by Messrs. T. G. Newman & Son, Chicago, Ills.

Babies of the White House.—These are the bright faces that interest us most in this week's *Frank Leslie's Illustrated Newspaper*. But which is Baby McKee?

Queen of the Flowers.

Beautiful queen of the garden,
The lovely, blushing rose,
Drinking the morning dewdrops,
As the night draws to a close.

Wafting the delicate perfume,
Through the summer air,
Beck'ning the *honey-bee* to you,
In its roaming everywhere.

Peonies, pansies and tulips,
"Rich as the crown of a king;"
Hyacinths, dahlias and snowdrops—
But none like the rose—sweet thing.

—*Mrs. B. Briggs, in Western Rural.*

QUERIES AND REPLIES.

Changing Worker Foundation Cells into Drone-Cells.

Written for the American Bee Journal

Query 645.—Do worker bees ever make worker-foundation cells into drone-cells?—O.

Yes.—C. C. MILLER.

Yes.—H. D. CUTTING.

Yes, a few.—EUGENE SECOR.

Yes, but not often.—R. L. TAYLOR.

I do not know.—MRS. L. HARRISON.

I have known them to do so.—J. M. SHUCK.

Not that I have ever noticed.—J. M. HAMBAUGH.

Not unless the cells are bruised in some way.—P. L. VIALLON.

No, I have never known them to do so. Neither have I ever heard of such a case.—WILL M. BARNUM.

They frequently do, particularly in case the foundation cells should get out of shape by a sag.—J. P. H. BROWN.

Not that we know of, unless it stretches or sags, and the cells become larger by that means.—DADANT & SON.

No, not in the central portion of the sheets of foundation, at least.—G. L. TINKER.

If there is no drone-comb in the hive, they will build a few drone-cells if they have to do it on worker-foundation.—M. MAHIN.

Not often. They do rarely cut down worker-comb, and build drone-cells.—A. J. COOK.

They lengthen them out with raised caps, and rear drones in them, occasionally.—MAHALA B. CHADDOCK.

I never knew them to do so, except as they cut away the foundation and then built drone-comb.—G. M. DOOLITTLE.

Yes, bees do cut down worker-cells, and on the same bases build drone-cells. This, however, occurs only rarely in small quantities.—JAMES HEDDON.

Yes, when they are obliged to do so, not having any place to build drone-comb.—C. H. DIBBERN.

Yes; and I am in a "peck of trouble" about it, too. I never had so much of that kind of work done before in a whole season as has already been done this spring—now May 8.—A. B. MASON.

Yes; that is, they often rear drones in worker-cells, but as they cannot enlarge the cells in diameter, such drones are necessarily smaller than those reared in full drone-cells.—J. E. POND.

In my experience, only when the sheet of foundation sags so as to stretch the worker embryo-cells, as impressed on the sheet to an unnatural size, in which case the bees will turn them into drone-cells.—G. W. DEMAREE.

Yes; if the foundation is injured in some way or out of shape, and when they want drones. This is rarely done, and usually on the outside edges of the foundation.—THE EDITOR.

A Plan for the Prevention of Increase.

Written for the American Bee Journal

Query 646.—1. How would the following plan work to prevent increase? When colony No. 1 swarms, hive the swarm as usual. When No. 2 swarms, take two or three of the center frames out of No. 1, replacing them with frames of foundation, cut out all the queen-cells, and put the swarm from No. 2 into hive No. 1. When No. 3 swarms, prepare No. 2 in the same manner, and put in the swarm from No. 3. 2. Would this satisfy them so that they would not swarm again?—Ohio.

We hardly think it would in a good season.—DADANT & SON.

It is a matter of experiment. Try it and let us know.—P. L. VIALLON.

It will usually satisfy them if they have plenty of room.—A. B. MASON.

In most instances it would, and there would be but few exceptions.—MRS. L. HARRISON.

It will do some good toward preventing increase, but will not be infallible.—EUGENE SECOR.

About the same thing has been practiced for a long time, and is said to work well.—C. C. MILLER.

Your plan will work in many cases, but you will meet with failure in actual practice. You will find that they are not satisfied every time.—H. D. CUTTING.

1. I have no experience with this plan in detail, but I see no reason why it will not work. 2. Try, and then you will know.—J. M. HAMBAUGH.

1. I do not think that it would work satisfactorily; besides it involves too much labor to carry it out in a large apiary. 2. Not in all cases.—G. L. TINKER.

This plan has often been tried, and while it does well in a general way, it will not prevent swarms from issuing.—J. P. H. BROWN.

I have often practiced this, except that I did not take out the frames. It usually works well, but sometimes fails to subdue the swarming impulse.—A. J. COOK.

1. That plan and similar ones have never proved satisfactory with me. 2. Now and then a swarm would be satisfied, but generally they would swarm again.—R. L. TAYLOR.

I think that your plan would work well, but the way to make sure, is to try it. Those who do, please report through the BEE JOURNAL. I believe that it would practically kill the swarming fever.—WILL M. BARNUM.

I have tried this, and found no objection to it, except the complication and labor. It does not pay me. I do not find it the cheapest way to get the most surplus honey from a field.—JAMES HEDDON.

I have never tried this plan, but I doubt its success. With a continued honey harvest, the swarming fever would be continued or revived. I would prefer returning the swarm to the hive whence it came, without the queen, and in six or seven days destroying all queen-cells but one.—M. MAHIN.

I would not go to any such labor as is suggested by the querist. What is known as the "Heddon method" is the simplest and most effective. I have practiced it ever since the war, and I want nothing better. It permits the swarm to issue, carries the whole force of the old hive to the new, and rears a new queen besides.—J. M. SHUCK.

I practiced this plan some six years ago, and one season satisfied me. The bees will usually prepare to swarm at once, and become sulky and work but little, though the fields abound with honey. Then, too, (if it prevented swarming) your queens would soon be old and worthless.—C. H. DIBBERN.

This is exactly the plan I am using this season, except that I use empty combs instead of the foundation, and so far it has worked well. Remember, however, that we are having a poor season, and I am only doing this in our basswood bloom, so as to keep forces together as much as possible, hoping to secure more honey in the sections by so doing.—G. M. DOOLITTLE.

1. Your plan has been tried often, or at least plans substantially the same, and they do not give satisfaction. The better plan is to keep each colony together. This can be done by hiving the swarm on the old stand, putting a

perforated zinc excluder on the new hive, and place the brood-chamber of the parent hive on the excluder above the swarm. A colony managed in this way will not attempt to swarm, and will work all right. Colonies that have very old queens that they wish to supersede, are very hard to satisfy short of superseding the old queen.—G. W. DEMAREE.

This is a sort of variation from an old plan that has been mentioned several times in the bee-periodicals. It will probably work well enough if one has the time and patience to bother with it. Whether it would prevent swarming again, or not, is a matter of great uncertainty. "It might, and then again it mightn't."—J. E. POND.

The method is not new, and it has been practiced with varying success for a long time. It is a laborious method, and does not invariably prevent increase.—THE EDITOR.

CORRESPONDENCE.

HONEY.

What is Honey? Is it Digested Nectar?

Written for the American Bee Journal
BY DR. J. W. M'KINNEY.

As all apiarists are interested in the honey product, they cannot fail to take deep interest in everything pertaining to the subject of its production, its purity and use. All alike feel a deep interest in maintaining the *true facts* as to the production of this, the most delicious of all sweets. Therefore, I am led to call in question the statement made in the article appearing on page 375, written by Prof. A. J. Cook.

As much as I admire the writings and opinions of Prof. Cook, I must enter a protest against the idea as advanced by him, in reference to the production of honey. In the article referred to, entitled "Bee-Glands," we find this statement, when speaking of the probable function of certain glands in the honey-bee: "All honey is completely or partially digested nectar." If this be true, then honey is not the pure essence of sweetness distilled through the nectaries of flowers; but is largely the product of the glands of insects; for the Professor says, just preceding the above quotation, that the "cane-sugar of neetar is changed to the grape-sugar of honey," by the action of these certain bee-glands.

We have always been led to believe—and the facts on investigation prove it true—that syrup made from cane-sugar and given to the bees, will be deposited in their combs just as taken from the feeder. So, also, the nectar taken from flowers is deposited without change.

As evidence of the foregoing fact, we see that nectar gathered by the honey-bee and deposited in combs, retains its color, flavor and aroma peculiar to the vegetable bloom from which it was gathered by the bee. All the change that can be perceived by any test from the time the nectar is gathered, deposited in the comb, and sealed over, is the evaporation of a portion of water it contained. This is done after being deposited in the comb by the heat in the hive and the fanning process by the bees' wings, and not by the *digestive* process of the insect.

Digestion in all animals is a function by means of which alimentary substances, when introduced into the digestive canal, undergo different alterations. The object of this is to convert them into two parts—the one a reparatory juice, the other, deprived of its nutritious properties, to be rejected from the body.

Nectar is gathered by the bee and received into a sac closed at its lower end, lying above and behind the digestive canal, in which condition it is carried to the hive and deposited in the comb, without change by the process of digestion.

The digestive function in the honey-bee is called into action on honey and pollen when taken into the digestive canal for the purpose of furnishing food for their larvæ, and for sustaining their own existence, or for the elaboration of wax.

When digested for food for their larvæ, we see that in appearance and taste the honey and pollen has undergone a very great change. It is now a white, opake substance, with a slightly sub-acid taste.

When honey is taken in abundance for two or three days, and perfectly digested and assimilated, we then have the elaboration of wax.

In no sense can we conceive of the digestive organs of the insect being brought into requisition in the production of honey. Just as sipped from the nectaries of flowers, with whatever peculiar characteristic the nectar may have—whether from white clover, with its delicious flavor and slight tendency to granulate, or from the Spanish-needle, with its golden color and aromatic flavor, and no tendency to granulate; or from the boneset (*eupatorium perfoliatum*) with its pungent and bitter taste—it is carried home to the hive, and there deposited in the combs.

When reflecting upon the number of trips made by the bees each day during a good flow of honey, we must regard the time entirely too short for digestion to take place, did the nectar enter into the digestive canal when gathered. Including the time going to and coming from the fields, and the time occupied in filling its honey-sac, there is only from 25 to 30 minutes consumed by the bees.

If syrup is fed near the hive, only from 10 to 15 minutes time is consumed in making the round-trip. Could digestion be so rapid as to change the cane-sugar to the "grape-sugar of honey" in so short a time? Certainly not.

With all due respect, then, I would suggest that the bee-fraternity be always on guard against a "scientific pleasantry," as its effect is sometimes baneful.

Camargo, Ills.

HINTS.

How to Make Lazy Bees Go to Work—Honey Packages.

Written for the Prairie Farmer
BY MRS. L. HARRISON.

Bees have been living this season, one day with Dives, and the next with Lazarus; consequently, the honey will not be so fine as it would have been had the flow been continuous. One season the honey came so fast that the bees were saving of their wax, and the comb was so delicate and thin, as to be almost imperceptible. This was during clover bloom. Owing to the heavy rains that have fallen so often, and so abundantly, clover bloom has lasted much longer than usual.

Lazy Bees.

Bees are proverbially industrious, but now and then a colony will be found that does not deserve the title. I have been watching with interest a very large colony with the surplus-boxes full of bees; also the portico and the outside of the hive covered to the top. They have been loafing for more than a fortnight, and the honey in the surplus-boxes increased very slowly. I was tired of such folly, and moved their hive and put in its place a hive containing young bees and a virgin queen.

I obtained these bees in this way: A colony swarmed, and, as I do not desire increase, I hived them and moved the old colony, putting the swarm where it stood. The next day I took out all the combs belonging to the old colony, brushed off the bees, and extracted the honey. There was no young brood, as the colony had swarmed before, and there was a num-

ber of queen-cells that their inmates had lately left. All bees that had been working in the fields flew to the old stand and joined the swarm.

I put back the frames and carried the hives to where the loafing colony had stood, and dipped out the bees with a long-handled spoon from the crowded portico, and gave them to the new hive. The bees that were working in the fields, as they returned, entered the hive upon their old stand. There are now two good working colonies in lieu of one loafing one.

Honey Plenty.

Bees are as good-natured to-day as a fat alderman after dinner, fanning himself and calling to his fellows, "We are rich, and folks know it." I took off sections and emptied the case upon a board placed upon an adjoining hive, selected those that were sealed, and put back those that were not, and filled up the case with empty sections. In the operation some honey leaked out upon the board, and I placed it in front of the hive, thinking that the bees would gather it up, but they would not look at it.

I would like to see those persons who think that honey is glucose fed to bees. Try the experiment of feeding them now. The Creator never intended bees to sip syrup, like flies, but to gather the juices of plants. When honey is as plentiful as it is to-day, it is a pleasure to work with bees; they can be brushed from their combs, or switched off with little twigs, and they do not even take any umbrage at it.

Removing Sections.

When sections are sealed, they should be removed so that they will not get soiled by the travel of the bees. They should be put into a tight box, so that the moths cannot get at them to deposit eggs. Shipping cases are just right for this purpose. I first make a sort of pan of manilla paper, fitting it nicely into the bottom of the case, and, after the sections are scraped free of propolis, fit them in nicely, cover them securely, and pile them up ready for market.

Packages for Extracted Honey.

I do not like wooden receptacles for extracted honey, for several reasons. It is difficult to get barrels that will not leak, and when honey granulates, it is hard to dig out. Those who produce honey largely, must of necessity use barrels or large tanks, but it is different with those who only produce a few hundred pounds in lieu of thousands. Large jars that are glazed as smooth as glass make good receptacles, as they can be set in tanks of water to melt the honey when it is granulated. Tin cans, of dimensions of eight or ten gallons, are a pet package with me, as they are lighter than jars. If jars of extracted honey are exposed to a very low temperature, they will burst with the expansion of the honey.

Many bee-keepers are opposed to the idea of straining honey, as all bits of comb or bees will rise to the top, and can be removed; but I prefer to tie cheese-cloth over cans or jars, and let the honey, as it runs from the extractor, pass through it. When a jar is full, remove this strainer, and tie a fresh piece of cheese-cloth over it, so that it can cure and evaporate.

Some of those who produce extracted honey largely, have run-ways covered with wire-gauze to keep out insects, so that the honey is boiled down by the sun's rays in passing along to its final tanks or store-house. I have a few glass jars of very fine extracted honey, covered with cheese-cloth, kept in place with rubber bands, daily in the hot sun, to evaporate and thicken.

Peoria, Ills.

HEAT.

The Reason Why Bees Leave the Hive—Smokers, etc.

Written for the American Bee Journal

BY CHAS. H. WIELE.

Dr. C. C. Miller is right when he says that heat will make the bees leave the hive. My bees are mostly in the shade of plum-trees, which are trimmed high, so that the limbs will not interfere with the working amongst them. If I am forced to place a new swarm in the sun, I try to get an armful of grass or weeds, and cover the whole hive with it, then they will seldom leave.

What I have never seen before is, that colonies would swarm again after 5 or 6 days, having received an empty hive and all the surplus boxes of the old colony nearly filled with honey. The brood-frames were built half way down, with no other than drone-combs, and the rims of the combs covered with queen-cells—as many as fifty, perhaps; of course the bees were returned, all the drone-combs taken away, and then I put in some empty combs of worker-cells, which made them stay and go to work with a will.

Even with experience, a man has to learn every day. There will always be something to turn up that he did not see before.

The "Doctor" smoker is a real comfort; it smokes away for almost half a day, and with nearly 200 colonies it is a necessity to have a good smoker.

Bees are booming, and there will be a big crop of clover honey. I have about 2,000 pounds. They have slacked off a little with swarming, but will surely commence again when golden-rod and other fall flowers commence blooming; the hives are overflowing with bees.

Stoddard, Wis., July 18, 1889.

TRANSFERRING.

How to Proceed When About to Transfer Bees.

Written for the American Rural Home

BY G. M. DOOLITTLE.

A correspondent writes, saying: "I have several colonies of bees in box-hives; how am I to get them out of these hives into movable-frame hives, as I wish them?"

The first thing to do, is to get things in readiness for the work, which will be to bore some small holes through the end-bars, and top and bottom bars of the frames, so that when the combs are fitted into them, small wooden pegs or wire-nails of suitable length can be pushed through these holes into the combs, to hold them in the frames until the bees have made them secure, when the nails or pegs are to be drawn out; some prefer to wind twine or wire around the frames, but I do not like this plan, for wherever the wire comes over the brood, the bees gnaw the brood out, which hurts the combs, besides spoiling so much brood.

Besides having the frames and wire-nails ready, a board will be needed that is about two feet square, and a barrel or box of convenient height for the operator to place the board upon. On one side of the board should be tacked three or four thicknesses of cloth, so that the brood and combs will not be injured by being placed upon it.

There are only two really favorable times for transferring, although it can be done at any time, by using care. The first is during fruit or apple bloom. If done in fruit bloom, but little brood and honey are in the way, while honey is coming in to prevent robbing, as well as to enable the bees to promptly repair their combs. The second, is 21 days after the first or prime swarm issues.

When done 21 days after swarming, there will be no brood in the hive except a little drone-brood, so there will be no loss from cutting through it, as all the bees from the eggs laid by the old queen will now be hatched, while the young queen will have only just begun laying.

Having the things above alluded to in readiness, together with a long-

bladed knife, proceed to the hive and blow a few puffs of smoke in at the entrance to alarm the bees, when the box-hive or log-gum is to be turned bottomside up, and the frame hive placed on the stand that the other occupied. Blow a little smoke over the bottoms of the exposed combs, and place the cap of the hive, or any box, over the bottom of the hive, or a little to one side, for the bees to crawl up into.

It is said that the box must fit so tightly that no bee can escape, and that the bees must be "drummed" up into it; but I find that the tight joint is unnecessary, and that all the "drumming" required is done by splitting the old hive apart, preparatory to getting the combs out.

Select the side of the hive to which the combs run parallel, if possible, and proceed to pry off the side, or split the old log open, using a cold-chisel to cut the nails, where such is necessary. If there are cross-sticks through the centre of the hive, these must be cut off in some way, otherwise each comb is liable to be injured to a more or less extent.

By this time the bees will all be off the combs next to you, when the first one is to be cut out of the hive and laid on the prepared board. Now lay the frame on the comb, and mark the comb by the inside of the frame. Take off the frame and cut the comb a hair larger than the marks, so that it will fit closely. Next, press the frame over the comb until it nicely fills the frame, when the pegs or nails are to be pushed through the holes into the combs, so as to hold it in place in the frame when hung in the hive.

To take the frame from the board, raise the board and all until the frame stands in the position that it does when it hangs in the hive, when there will be no danger of the comb falling out in lifting. Place in the hive, when the bees which have returned from the field will take possession of it, licking up the drip, etc.

Proceed to cut out the rest of the combs, and fit them into the frames in the same way, until all are used, and then place them in the new hive, in the same relative position as nearly as possible, which they occupied before. By this I mean, place the brood in the centre of the hive and near together, instead of scattering it about among the honey or empty combs, for if so scattered, some of the brood will be liable to perish, if there should come a cold spell soon after the transferring is done.

If some of the combs with brood in will fit the frames better if turned bottomside up, from what it occupied in the old hive, I see nothing in the way of placing it in the frame as it will fit best, for with our reversible frames it has been proven that it makes no difference which side up the brood goes.

If drone-comb to any amount is found, it is well to leave the most of it out, if not the whole, for only a few drones in each apiary are needed for all practical purposes. Many pieces of nice worker-comb are made by the combs cutting to disadvantage; they can be fitted into the frames and a little melted wax dropped between each joint, so as to hold them in the position you wish.

As soon as all the combs are in, close the new hive, and hive the bees which are in the cap or box, into it, doing this in the same way that you would hive any swarm. If a scarcity of honey exists at the time you wish to transfer, so that robbing is liable to occur, it is then best to "drum" the bees out into the box, after which the old hive can be carried into a room while the combs are being fitted into the frames. Something still better than this, would be to use a bee-tent over both the hive and the operator. In this way the work can be done at any time right in the apiary where the hives stand.

In a few days, or as soon as the bees get the combs fastened to the frames, the nails or pegs can be drawn, when you have something nearly as good as if the combs were built in frames originally.

Borodino, N. Y.

HIVES.

Impartiality and Veracity—the Large vs. Small Brood-Chambers.

Written for the American Bee Journal

BY CHAS. DADANT.

After reading the article of Mr. Hutchinson's, on page 425, I had resolved not to write again on the same subject, for I do not like to overthrow my opponent; but another fact, of which I may write hereafter, changed my mind, and incited me to show the means used by some writers to support a bad cause.

In answer to my argument, that the bee-keepers who oppose large hives have never tried them, Mr. Hutchinson answers: "*My* ideas in regard to the size of hives are not wholly theoretical. I have used hives ranging in size from a two-frame American to one holding 33 American frames."

While he wrote this, Mr. Hutchinson forgot a Latin proverb: *Verba volant, scripta manent*—"The words fly, the writings remain;" for I have under my eyes two letters from him; the first says: "I must say, though, that I used large hives, 11 American frames for several years, and gradually changed them for smaller, so that I am not wholly without experience."

After receiving my answer, that 11 American frames were not larger than 10 Langstroth, Mr. Hutchinson wrote the second letter, in which I read: "When I wrote you how large hives I had used, I, of course, knew that you had used larger ones."

Then the 33 American frame hives were invented by Mr. Hutchinson just for the need of his cause.

He adds that "Mr. Heddon has used many different sizes of hives; among others he had 30 'long idea' hives, that held 30 frames each, and he used them two years before throwing them away."

In the book, "Success in Bee-Culture," by Mr. Heddon, on page 85, we read: "Some advise us to have extra-prolific queens; put each one in a hive containing 30 combs, then shift the combs every few days, and make her keep them full of brood. I tried it—to my satisfaction. I found that this method demanded an extra amount of labor—a labor that would pay the interest at 20 per cent. on every dollar of the capital invested. So I just cut up these large, long hives, making five out of each one, and divided those 30 combs among these hives, and reared four more queens."

Then, according to Mr. Hutchinson, Mr. Heddon made 150 6-frame hives, since he had 30 to divide. I would be glad to know the number which was added by Mr. Hutchinson to the true quantity of "long-idea" hives used by Mr. Heddon. Perhaps he added but a cipher after the number 3.

Be it as it may, an experience with such an extravagant hive and system has no more to do with our large hives than the names of Messrs. Doolittle and Grimm, cited by Mr. Hutchinson, since they have never used them.

Mr. Hutchinson continues: "In his first article, Mr. Dadant asserts that a large colony requires no more labor than a small one, and I asked him if he could extract the honey from a large colony as soon as from a small one. This *he evades* by telling with how few days' work he and Mr. Stachelhausen have produced large crops of honey—all of which no one doubts; but the question is, 'Can you extract the honey from a large hive as soon as from a small one.'"

Scripta manent. If the reader will take the trouble of looking at the bottom of page 342, in the first column, he will read in the article of Mr. Hutchinson: "Can he (my oppon-

ent) extract the honey from a large colony with as little labor as from a small one?" I defy Mr. Hutchinson to show where he used the words "as soon as," which have very little significance, and were evidently devised by him to *evade* answering my argument; for he knows perfectly that it is easy to prove its truthfulness.

In the Hutchinson *Review* of May 10, page 74, Mr. Heddon writes: "Our method in running three large apiaries, is to keep a good man in each one...." The six apiaries of the firm of Chas. Dadant & Son, are cared for by a single good man, Mr. McDaniel, who attends also two others—one for himself and one for another bee-keeper; while each one of the Heddon apiaries is kept by a good man; yet we do not use a system which permits the handling of hives rather than frames; but for 20 years we tried to realize the motto of Mr. Heddon, as given in his "Success," page 10: "He who produces at maximum cost will fail; he who produces at minimum cost, will succeed;" and our large hives helped us to realize it better than its author did, even with his new hive.

Mr. Hutchinson continues: Mr. Dadant says that I have condemned oil-cloths, as I have large hives, without trying them. Large hives I have used, quilts *I have not to any great extent...*." *Scripta manent.* We read in the *Review* of Mr. Hutchinson's January issue, page 11: "Perhaps our genial friend can do better with quilts than we can; we think he could, because we have *never* used them—seeing others use them satisfied us."

Well, I think that an advocate is very short of arguments, who uses the means to which Mr. Hutchinson had recourse, and that such a poor way is far from giving confidence to his readers.

Hamilton, Ills.

THE QUEEN'S VISIT

To the Bee and Honey Show at Windsor, England.

From the British Bee Journal OF JULY 4, 1889.

Bee-keepers who have this year visited the annual show of the Royal Agricultural Society of England in its year of Jubilee, have had a treat of a high order. About ten miles of shed, some 130 acres of a specially suitable part of Windsor Great Park, gave ample room for man and beast to move about in comfort.

"When Greek met Greek, then came the tug of war," but when bee-keepers met those whose friendly faces had been pictured but in the mind's eye since the last Royal, then came the tug of kindly greeting, in many cases accompanied by some enthusiastic argument as to the varied points of perfection (or otherwise, alas!) of this or that exhibit, this or that method of procedure, amidst the changes and chances of modern apiculture.

Amongst the many, to us, unknown apiarists of the old benighted schools of arrant skeppists and self-opinionated bee-keepers who persist in walking in the lines their fathers trod, no doubt were many who, so to speak, "came to scoff and remained to pray" for the multitudes of appliances on exhibition, the exceedingly fine show of immaculately pure honey in sections and bottles, and the practical illustrated teaching by Mr. S. J. Baldwin, in the bee-tent of "How to do Rightly," must have convinced many who still remain obdurate, or obstinate, that there is but one way for bee-keepers to pursue—the humane method taught by the British Bee-Keepers' Association, and its affiliated offshoots in the counties, the modern scientific way of management in the frame-hive.

At an early hour on Friday morning, June 28, it was evident that something out of the ordinary routine was about to transpire. In the bee-tent all was activity, and the officials in charge were busy making preparations. The exhibits were being arranged, and Mr. Huckle was all energy and action. The floral decorations, which were becoming a little faded, were being rearranged by Mrs. Bligh, who kindly undertook this part of the programme, and accomplished her task to the satisfaction of all in a way only possible for a lady, and the various flowers visited by bees arranged amongst the other exhibits, formed one of the most attractive features of the show.

The Chairman (Mr. T. W. Cowan), who had been present during all the week, the Vice-Chairman (Hon. and Rev. H. Bligh), and the Rev. R. Errington, were also early in attendance, and active. It was not definitely known until the day before, that Her Majesty, the Queen, intended honoring the bee-department with a personal visit, hence these preparations. It had been arranged that on Her Majesty's arrival at the department, the Baroness Burdett-Coutts was to present her with a bouquet of flowers visited by bees. This the Chairman and the Rev. J. L. Seager arranged with Messrs. Sutton & Sons, that they should prepare from bee-flowers growing on their farms at Reading. The bouquet, which arrived at 11:30, was artistically arranged, and fitted in a handsome gilt holder, and tied round with white satin ribbon with flowing ends. In the holder was an inscription stating that it was presented to Her Majesty by the British Bee-Keepers' Association.

About 12 o'clock the Baroness drove up, and was received by the Chairman and Committee, and the bouquet, which was greatly admired by all present, was handed to her. After viewing the parade of cattle from the Grand Stand, the Queen proceeded on her round of inspection, the crowds of people cheering vociferously. From the bee-department the noise was heard in the distance, and the advance of the Queen's carriage could be marked by the gradual swell of the applause.

Soon after 12 o'clock there was a rush of policemen, who cleared the shed and formed a line to allow the procession to pass. It was a pretty sight, as those who were to take part in the reception of the Royal guests, looked up the avenue and saw the Royal procession advancing at a foot pace. Mr. Jacob Wilson, the Honorary Director of the Show, headed the procession on horseback, and was followed by the outriders and equerries in waiting. Then came Her Majesty's carriage, drawn by four horses. In the carriage the Queen was accompanied by the Prince of Wales, and the Prince and Princess Henry of Battenberg.

The Baroness, Mr. Cowan, Mr. Bligh, and Mr. Errington, were ready waiting to receive Her Majesty; and as the carriage stopped in the centre of the stand, the Baroness handed the bouquet of flowers to the Queen, and explained that they were specially selected as representing flowers visited by bees. The Baroness then presented Mr. Cowan to the Queen as Chairman of the British Bee-Keepers' Association. Her Majesty received him graciously, and he briefly explained the objects of the Association, and drew Her Majesty's attention to some of the principal exhibits in the show. She showed great interest in the honey, and at this moment Mr. Bligh handed to Mr. Cowan a specimen of comb honey. This was a beautiful specimen of sainfoin honey, from the exhibit of Mr. W. Woodley, and the device worked by the bees consisted of the following letters:

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enclosed in a frame and covered with glass. Mr. Cowan held it up, and explained that it had been worked by bees in the county of Berks, and asked if Her Majesty would graciously accept it from the British Bee-Keepers' Association. The Queen bowed most graciously and replied, "With great pleasure," and as she thought they

could hardly find room in the carriage for so bulky a present, the Prince of Wales suggested it should be sent to the Castle. Much interest was also shown in the method of folding a one-pound section. The Queen then shook hands with the Baroness and Mr. Cowan, thanked them, and drove off.

In the other carriage were Prince and Princess Christian, and Prince Albert of Schleswig-Holstein and suite.

The weather was all that could be wished, and it is some years since a show of the Royal has passed off without umbrellas being called into constant requisition ; but during this show they have only been required to keep off the sun's rays.

An amusing incident happened just before the Royal procession passed. The refreshment contractors had placed their cooking furnaces quite close to the skeps that were kept for driving the bees and other operations in the bee-tent. These furnaces were used at night for cooking the joints for the day's provisions. The heat made the bees rather uncomfortable, and a swarm issued and passed over the route to be taken by the Queen. Thousands of bees were flying to and fro, and Mr. Baldwin got a skep and induced the bees to settle by sprinkling them on the canvas of the bee-tent. It was not a moment too soon, for no sooner had the bees settled quietly, when the Queen drove up. All the arrangements were perfect. The device, accompanied by several one and two pound sections of comb honey of first-rate quality, selected from the exhibits of Mr. Woodley, of Newbury, and Miss Gayton, of Much Hadham, were in due course conveyed to the Castle, to be placed on Her Majesty's table. Mr. Huckle has since received the following communication :

WINDSOR CASTLE, June 29, 1889.

SIR :—I am commanded by the Queen to request that you will convey to the Committee of the British Bee-Keepers' Association, Her Majesty's thanks for the honey and honey-device which they have been kind enough to present the Queen.

Yours, faithfully,
HENRY PONSONBY.

The bee-department of the Royal has been honored twice previously by Royalty. At the Kilburn show in 1879 the Prince of Wales visited it, at Norwich in 1886 it was visited by the Prince and Princess of Wales, whom Mr. Cowan, with other members of the Committee, had the honor to conduct around the department.

The visit of Her Majesty and the Royal Family will cause the Royal Show at Windsor to be long held in remembrance by all bee-keepers. The status of bee-keepers has been raised by the honor conferred upon them. It has been shown that bee-culture is an integral part of agriculture, and that the connection between agriculture, horticulture and apiculture is very intimate. The Royal notice, the magnificent weather we are enjoying, and the hopeful honey season, will impart a heart of grace to all bee-keepers, and cause them to go on their way rejoicing.

QUEENS.

New System of Rearing Several Queens in a Full Colony.

Written for the American Bee Journal

BY DR. G. L. TINKER.

It has long been sought to rear and secure the fertilization of a number of queens, and get them all laying at once in a full colony of bees ; but the well known antagonism of queens has heretofore prevented the accomplishing of that object. While it may, or may not, be of any advantage to the honey-producer, to have a multiple of queens in a hive, it must be conceded that a successful system of rearing queens, as indicated, in full colonies, will be a boon to queen-breeders, and a great improvement over our present methods of rearing queens.

At last I have a successful plan—what I call a "Queen-Rearing Chamber"—by which may be readily reared from 10 to 20 queens in any full colony of bees, and get them all laying at once, the worker bees all flying from one entrance, but having access to all of the queens.

It seems almost incredible that we should be able to so interfere with the usual course of nature, as to bring about such a result after so many years of having colonies with only one laying queen, or, at the best, a young one and a superannuated old one !

To the introduction and successful use of perforated-zinc in our methods, is due the success of this new plan ; although, with what I now know, I could make a hive of all wood and succeed ; but the perforated-zinc is the most practical excluder thus far put to use.

To successfully rear a number of queens at once in a hive, it is only required that we keep the queens apart by the use of the zinc, and give them separate entrances. However, one sheet of the zinc intervening between the queens is a partial failure, as the rival queens will discover each other and quarrel ; the result being that one of them takes fright and swarms out, or may be killed. To remedy this difficulty, I began to use two sheets of the zinc between the queens, with a bee-space between the sheets, or solid wood. Thus arranged, there is no trouble about getting the queens mated.

The principle here outlined was published in the BEE JOURNAL on page 26—see next to the last paragraph of the third column—which another season's experience has shown to be correct in every word. Thus it will appear, that while queen-cells will be cared for and allowed to hatch above zinc excluders in full colonies, it is impossible to secure the mating of the young queens while there is a laying queen in the brood-chamber below.

I wish all queen-breeders to mark this fact, for it is the sole reason why the perfection of the "queen-rearing chamber" has so long been delayed ; for both myself and others have often had queen-cells hatch above queen-excluding honey-boards for years, and although the young queens were given a chance to fly out, not one of them was ever fertilized without a coincident loss of the laying queen below in some mysterious manner. Hence, I feared that we should never be able to get two or more young queens laying in one hive at the same time. I then began to experiment with two virgin queens of the same age, and to my astonishment I succeeded in getting both laying the first trial.

The principle having been discovered, it only remained to make a practical application of it, and the result is the new "queen-rearing chamber." Now we shall be able to have several laying queens in a hive, and after they get to laying, one sheet of the zinc between them is all-sufficient for continued harmony ; the bees seeming to care for one queen as much as another in the same hive.

I have had four queens of the same age together in one hive for the past two months, and numbers of other colonies with two and three laying queens for shorter periods, until I know that the system is not only possible, but a great practical success.

In perfecting this method I have spent much time and hard study, besides money, and I came to the conclusion that I ought not, in justice to myself, to *give* it to the public. After perfecting the plan during the season of 1888, I applied for a patent which has just been granted, and now I am ready to make the matter public.

Being the first to discover this new system of queen-rearing, and to make a practical and successful application of it, I shall therefore claim all queen-rearing chambers in which the foregoing principle is made to appear.

How to Make the Chambers.

The chambers, as I have perfected them, are divided into compartments by three partitions made of part wood

and part perforated-zinc. The partitions are so placed that two brood-frames will go into the apartments at each side, and one frame in each of the middle apartments. The outside dimensions are 12½x19⅛ inches, or the same size as my hive, and takes the same brood-frame. The depth is 7⅞ inches, so as to allow a bee-space above and below a 7-inch brood-frame.

On the bottom of the chamber is attached a sheet of perforated zinc, or a wood-zinc combination, which is attached also to the bottom of the partitions, which extend through the chamber to the top, so that a sheet of perforated-zinc laid on the top, or the wood-zinc honey-board, will close the four apartments to the queens.

When the chambers are storified, a zinc excluder is used between each one of them to form the necessary bee-space; but an exeluder is not required under the lower one, as we may put on a strip of perforated-zinc over the entrance in the bottom-board on which the chamber is placed; or, we can place a queen-trap or a simple excluder before the entrance. This prevents any queens or drones from getting under the chamber out of sight, and will compel both the queens and drones to go in at the holes in the sides of the chambers. It is remarkable to see the drones go out and in at the holes, apparently visiting the young queens in the several apartments, but the queens return to the holes from which they came, with almost unerring certainty. The holes are made with a ⅝-ineh auger, near the bottom of the chamber, one to each of the apartments.

Where the holes come near each other in storifying, I place a twig of green leaves or other object to aid them in locating the right hole. I have also painted the chambers with red, white, blue and yellow sides, but I do not think it neeessary, if twigs of leaves are attached about the holes. The twigs are pinned on with common pins.

In starting the chambers with queen-cells, all of the holes are stopped with common corks until the cells are hatehed. On the third or fourth day after, the corks must be removed about 12 m., and if the eolony is strong, the corks may be left out. After the queens have mated, the corks may be put back again. But very few workers are seen to issue from the holes, so that they may as well be stopped after the queens are laying, unless drones are in the chambers, in which ease the holes may be left open at least during the middle of the day.

I find it best to rear about the number of queens that a colony will usually start, or 12 to 16; but if the colony is built up very strong by hatching brood from other colonies, after the first lot of queens are taken out and disposed of, it may be started with 6 to 8 of the chambers, and from 20 to 30 queens reared at a time. If the cells given will all hateh at about the same time, I think that it would be possible to rear that many queens every two weeks in one of these colonies.

In taking out the queens, one, two or more may be taken any time after they begin laying, but no re-queening can be done till every queen is removed and the colony has been queenless at least three days; and it is better to wait until some of the cells started are sealed over; then eells should be given that will hatch very soon, and all within a few days. With our present method of getting cells, this is very easy to do. Either the cells may be introduced, or they may be hatched in nurseries, and then a queen allowed to run into each of the apartments in all of the chambers used; but if eapped queen-cells are in any of the apartments, it is safer to introduce the cells. If we tear down the cells (and it is the best plan at this time of the year), then a queen just hatched will be accepted every time.

How to Get Queen-Cells.

My method of getting queen-cells I think to be far superior to any other plan. It was first made known at the late Columbus International Convention, and is as follows:

Take the queen and brood from any colony, and give combs of honey or sealed brood, leaving out a central comb. Cage the queen removed, and put her over the frames to keep the bees quiet until evening. Then take her away, and leave them queenless until the next day, when they will not destroy eggs that are given to them to rear queen-cells.

Prepare the eggs for them as follows: Take a brood-frame, remove the bottom-bar, and nail in a cross-piece one inch wide, and as long as the frame inside, 1⅛ inches from the lower end of the end-bars. Fasten in a sheet of foundation that will come down nearly to the cross-piece, and the frame is ready for the eggs.

Select the colony to breed from, and cut out a piece of comb 2 inches square, containing eggs about ready to hatch, and cut up the comb into single rows of cells; then cut off two-thirds of the comb on the opposite side of the septa, after which cut up the rows of cells into cells having an egg in each. These are to make the queen-cups, and I let the bees make them.

Hold the frame bottom up, and drop a little melted wax on the cross-piece about an ineh apart, by means of a small camel's-hair brush, and, before the wax chills, attach the cells so that they will point mouth downwards, when the frame is placed in the hive. My brood-frame is 7x17 inches, and I can attach in this way 16 cell-cups without danger that the bees will build any of them together.

As soon as the frame is prepared, place it in the queenless colony, and they will start 12 to 16 cells. As soon as they are well supplied with royal food, the bees are to be shaken off, and the frame placed in the super of a strong colony over a zinc-excluder, for completion and care.

Give another prepared frame to the queenless colony, and remove as before, which may be done three or four times, when the colony had better be given a laying queen. All of the cells may be given to the strong colony to care for till nearly ready to hatch.

If no honey is coming in, the colonies building the cells should be liberally fed.

My new brood-chamber holding the suspended Langstroth frame, size 7x17 inches, I regard as the best adapted to the new system of queen-rearing, as it is also the best for the producer of comb or extracted honey; for wintering, or for breeding up strong colonies in the spring.

New Philadelphia, O., July 22, 1889.

HONEY SHOWS.

How to Make a Good Display—One that Will Attract.

Written for the Rural Canadian.

As very many will be making exhibits of honey before long, a few suggestions will not be out of place.

Do not attempt too much; do whatever you undertake in a thorough manner, a credit to yourself and the industry which you represent. Exhibits of anything gotten up in a hurried and incomplete way, reflect very unfavorably upon whoever makes them.

If you have not a good article, or if a display is required, and you have not the proper material to make it with, what benefit will you derive? None. The neatest display you can make of honey would be a combination of comb and extracted honey.

If you wish to relieve the monotony of a honey show, some curiosity, by way of a frame of brood; if it contains worker, drone and queen cells, so much the better; also drones and workers. Of course it is not at all likely that you will be able to have queen-cells and a queen upon the same frame. Then photographs of your

apiary, or prominent and useful members past and present, of the Bee-Keepers' Associations are of interest and help to break the monotony of a honey display.

Regular shelves are not desirable; make them irregular, and give the shelves an appearance of variety.

Glass as a package for extracted honey is desirable if the honey is free from granulation, and of a proper color; it must, however, be remembered that, in transit, it is more easily broken. It is more liable to leak than a first-class tin can, therefore it is well not to show too much in glass.

One-pound and even two-pound jelly glasses and the different sized gem jars sell well, as the careful housewife can use them in doing up fruit later.

Tag everything carefully; mark on the outside of your cans what the contents are, so that you do not require to rush about in a frantic manner tearing open every case, and then in the last one find what you require. Depend on no one, bring your own tools.

If you calculate to return your goods, have a tag with the proper address underneath the one you put on to the exhibition, then when there, all you have to do, is to tear off the top tag, and your package is properly addressed. Do not allow your outside packages to be removed, as you may not be able to get them, but utilize them for stands, and cover all neatly with paper. In selling honey you will find that there are just certain hours when there will be many customers, and have everything convenient, and be prepared for a rush.

Keep your money in your pocket; it is surprising how far back you can reach for that article. Your pocket may become sticky with honey, but there is no use feeling stuck up about that. It would be a pleasure not to pen it, but sad experience prompts otherwise. Do not have any help in selling honey unless you can absolutely depend upon the honesty of such help.

Convention Notices.

☞ The Darke County Union Bee-Keepers' Society will hold a meeting at Greenville, O., on August 3, 1889. J. A. ROE, *Sec.*

☞ The Northern Illinois Bee-Keepers' Association will hold its next meeting on Aug. 20, 1889, at R. Marsh's, in Guilford Township, 4 miles northeast of Rockford, Ills. D. A. FULLER, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec. Brantford, Ont., Canada.

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.

THE DANDELIONS.

Written for the Portland Transcript
BY E. CAVAZZA.

The gay young Dandelions had gold,
They cast it here and there;
On hill and dale their coins were found,
By roadside and in planted ground;
Their wealth of money manifold
They squandered everywhere.

The Dandelions grow elderly
And penniless and gray;
Their store of gold is spent, no doubt,
For now white missives fly about—
The poor old spendthrifts give, we see,
Their promises to pay.

The wayside and the meadow hold
Their promissory notes,
The banks receive them—and next spring
The honest Dandelions will bring
Ten thousand thousand disks of gold
Where now the seed-drift floats.

CONVENTION DIRECTORY.

1889.	*Time and Place of Meeting.*
Aug. 3.	Darke County Union, at Greenville, Ohio. J. A. Roe, Sec., Union City, Ind.
Aug. 20.	Northern Illinois, at Guilford, Ills. D. A. Fuller, Sec., Cherry Valley, Ills.
Aug. 31.	Haldimand, at Fisherville, Ont. E. C. Campbell, Sec., Cayuga, Ont.
Sept. —.	Maine, at Livermore Falls, Me. J. F. Fuller, Sec., Oxford, Me.
Sept. 5.	Erie County, at Buffalo, N. Y. O. L. Hershiser, Cor. Sec., Big Tree Corner, N. Y.
Dec. 4, 6.	International, at Brantford, Ont., Canada. R. F. Holtermann, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

White Clover and Basswood.—S. G. Soverhill, Tiskilwa, Ills., on July 19, 1889, writes:

I had 30 colonies of bees to start with the past spring, and have 68 now. I have taken off 1,800 pounds of comb honey, and extracted 1,140 pounds, besides there is more ready to take off now. The bees are still storing from white clover. The flow from basswood is over. There is plenty of rain, and white clover will last sometime yet.

A Continued Honey-Flow.—S. J. Youngman, Lakeview, Mich., on July 21, 1889, says:

I predicted, a short time ago, that we would have a great flow of honey from the basswood bloom; excessive swarming has, however, interfered with the honey gathered, to a great extent. The basswood flow is over, at this date, but there is no stop to the honey-flow, as the clover on all pastured lands is blooming profusely again, and seems to yield honey the same as in early spring. Many swarms have gone to the woods.

Plenty of Bee-Forage.—A. W. Cumins, Woodstock, Ills., on July 22, 1889, says:

Bees are doing well. There seems to be more forage than they can handle—white clover, sweet clover, and basswood; but I notice very few on either of the last two plants. I had 7 colonies in the spring, and I now have 19.

Good Yield of Honey.—C. W. McKown, Gilson, Ills., on July 22, says:

My bees have done unusually well this season, and still the good work goes on. I had 98 colonies in the spring; now I have 140. Over half the old colonies have not swarmed at all. They seemed to be too busy to think about swarming. The white clover crop was very abundant, and the honey is of excellent quality. We have taken over 7,000 pounds from the hives—one-third of it comb, and two-thirds extracted; and there is a large quantity almost ready to take off now—in fact considerable of it ought to come off to-day—but, oh! we are so busy. My hired man took from the hives 700 pounds of extracted honey, and returned the empty combs, all by himself, one day last week. The sections have been filled more uniformly with straight combs this year than ever before for me.

The Basswood Honey-Flow.—S. D. Haskin, Waterville, Minn., on July 23, 1889, writes:

Bees began to work on basswood on July 4 a little, and on July 6 they were in full blast; it closed on July 20, with no interruption except a couple of light showers. I never saw any vegetation so weighted down with bloom as it was this year; but the nectar-flow was not over-abundant—only just tolerable, and during none of the time did the bees work strong on it all day. At the first it was in the morning or forenoon, and the last was in the afternoon. It was very warm weather. The honey is of the very finest quality, thick and heavy, ready to seal as soon as gathered.

Strong Colonies.—S. N. Black, Clayton, Ills., on July 20, 1889, says:

On June 1 bees were in a starving condition, but I never had so strong colonies in my life as I have to-day. I have hived but 3 or 4 second swarms, having put back the rest. A great many bees have swarmed 3 or 4 times. The increase is greater than I ever knew. I have 400 to 500 pounds of comb honey.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

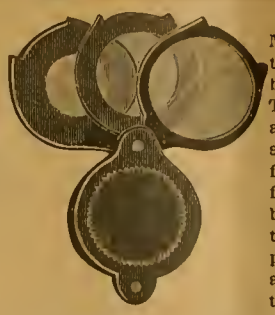
Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.



Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arousea in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

Hastings' Perfection Feeder.—This excellent Feeder will hold a quart, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

Many Good Advertisers invite our readers to send for their descriptive Circulars, etc. It will pay to get these, and see what is for sale, by whom, at what prices, and what things are offered. Every one can learn something in this way. Please always tell advertisers *where* you saw their cards; they like to know, and we like to have them.

Prang's National Flower is the title of a beautiful pamphlet which contains two colored plates of the two most popular candidates for selection as the National Flower of America. It also has two poems, and a postal card addressed to Messrs. L. Prang & Co., Boston, Mass., with a vote to be filled up for the selection of a National flower. The pamphlet costs 25 cents, and can be obtained at this office.

Queens.—We can supply Tested Italian Queens at $1.50 each; Untested, $1.00 each, by mail, postpaid.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

Cheap Extracted Honey.—We have a keg of DARK HONEY, weighing 164 pounds, net, suitable for feeding to bees, which we will sell at **6 cents** per pound, delivered on the cars here.

Honey and Beeswax Market.

NEW YORK.

HONEY.—New extracted sells as fast as it arrives. Orange blossom, 7½@7½c.; inferior Southern, 70@75 cts. per gallon. Some demand for the comb, but we have no stock yet.
July 22. F. G. STROHMEYER & CO., 122 Water St.

MILWAUKEE.

HONEY.—Old crop nearly gone, and new begins to appear, the quality being fine. We quote: New white 1-lbs., 15@16c. Extracted, white, in barrels and kegs, 7@8c.; in tin and pails, 7½@8½c.
BEESWAX.—23@28c.
July 16. A. V. BISHOP, 142 W. Water St.

KANSAS CITY.

HONEY.—Old crop all gone. New 1-lbs., 16@18c.; 2-lbs., 14c. No California comb in the market. Extracted, white, 8c.; amber, 7@8c
July 17. HAMBLIN & BEARSS, 514 Walnut St.

CHICAGO.

HONEY.—New crop is appearing, and prices range from 15@17c. An active market is not looked for till later. Extracted, new crop, 7@8c. Very light receipts, and few sales.
BEESWAX.—25c. R. A. BURNETT.
July 11. 161 South Water St.

CHICAGO.

HONEY.—O'd crop of 1 and 2 pound white clover honey exhausted, but considerable 1-lb. buckwheat is being offered. Our first receipts of new 1-pound white clover were in this week, and is selling at 14@15c.; dark 1-lbs., old, 10@11c. Extracted, dull, 6@8c.
BEESWAX.—25c.
July 11. S. T. FISH & CO., 189 S. Water St.

DETROIT.

HONEY.—New crop is coming in slowly, and sells at 14@15c. for comb. No desirable old stock left.
BEESWAX.—24@25c.
July 24. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—New white comb in 1-lb. sections sells at 16@17c. White extracted, 7@7½c.; dark, in barrels, 6c. An active demand is not expected before Sept. 1. No new extracted in the market.
BEESWAX.—None in the market.
July 20. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Extracted, bright, 6½c; dark, 5½c. The market is slow.
BEESWAX.—Scarce at 23c. for prime.
July 20. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—Market for extracted is quite active. Orange blossom, fine quality, sells readily at from 7@7½c. Off grades of Southern find quick sales at 60@70c. per gallon. No new California honey on this market. Extracted would bring from 7½@8c.—Too early to quote prices on new comb.
BEESWAX.—Dull and declining—25@25½c., good yellow.
HILDRETH BROS. & SEGELKEN,
July 22. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—Not a case of comb honey in our store—something unknown for a long time. Expecting the new crop this week. Price will be about 18c. We have some very fine new extracted white clover, which sells at 8@9c.
BEESWAX.—24@25c.
July 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb., and 12@15c. for fair to choice comb. Demand slow, and arrivals are fair of the new crop.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
July 22 C. F. MUTH & SON, Freeman & Central Av.

Advertisements.

The Hive and Honey-Bee, and Dadant's Foundation. See advertisement in another column.

DR. TINKER'S

Queen - Rearing Chamber!

THE only practical invention for rearing and securing the mating of a number of Queens and getting them all laying at once in full colonies of bees. It does away with Nuclei at all seasons, and also with laying workers. Patented July 16, 1889.
For full particulars address, with stamp,
DR. G. L. TINKER,
31Atf NEW PHILADELPHIA, O.
Mention the American Bee Journal.

PATENTS!

PATENTS, Caveats, and Trade-Marks procured, Rejected Applications Revived and Prosecuted. All business before the U. S. Patent Office promptly attended to for moderate fees, and no charge made unless Patent is secured. Send for "INVENTOR'S GUIDE."
FRANKLIN H. HOUGH,
31Ctf WASHINGTON, D. C.
Mention the American Bee Journal.

SECTIONS! SECTIONS! SECTIONS!

WE are now offering our No. 1 V-Groove Sections in lots of 500, at $3 per 1,000; No. 2 Sections at $2 per 1,000. For prices on Foundation, Hives, Shipping-Crates, &c., &c., send for Price-List. Address,
J. STAUFFER & SONS,
(Successors to B. J. Miller & Co.)
31Atf NAPPANEE, IND.
Mention the American Bee Journal.

My 21st Annual Price-List of Italian, Cyprian and Holy-Land Bees, Queens and Nuclei Colonies (a specialty): also Supplies—will be sent to all who send their names and addresses.
H. H. BROWN.
17Dtf LIGHT STREET, Columbia Co., PA.
Mention the American Bee Journal.

Eaton's Improved
SECTION-CASE.
BEES AND QUEENS. Send for free catalogue. Address
FRANK A. EATON,
3D17t BLUFFTON, OHIO.

SEND $1 for a Choice Untested Carniolan Queen. Send Registered Letter or Express Money Order. **A. EASTMAN,**
27D4t UNION, McHenry Co., ILLS.
Mention the American Bee Journal.

A POSITIVE FACT!

Queens by Return Mail!
From the Old and Reliable
KNICKERBOCKER BEE-FARM
(Established 1880.)
☞ Circular and Price-List Free.
G. H. KNICKERBOCKER,
27Dtf Box 41 PINE PLAINS, Duch. Co., N. Y.
Mention the American Bee Journal.

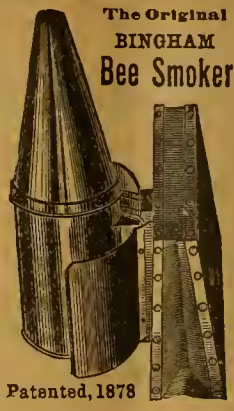
Barnes' Foot-Power Machinery.

Read what J. I. PARENT, of CHARLTON, N. Y., says—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List Free. Address, W. F. & JOHN BARNES,
45Ctf No. 196 Ruby St., Rockford,

ITALIAN and CARNIOLAN QUEENS.

PRICES LOW: 30 years' experience in Rearing Queens. Circular free.
Address, **HENRY ALLEY,**
31Atf WENHAM, MASS.

The Original
BINGHAM
Bee Smoker



Patented, 1878

AUSTIN, TEX., April 24, 1889.—The Goods came through in good order. We are glad that we can show our customers a full line of solid comfort. Fraternally,
J. W. TAYLOR.

FARINA, March 23, 1889. — Those who see me use one of your Smokers, cannot be persuaded to buy any other, as they stand the test and do the work every time.
Respectfully,
M. D. HEWITT.

Bingham & Hetherington Uncapping Knife

Patented May 20, 1879.

BINGHAM SMOKERS and Bingham & Hetherington KNIVES have Revolutionized the Smoker and Knife Trade, and have made Bee-Keeping both a Pleasure and a Success. These Goods have been used years without complaint. The Smokers are the only stove-wood, clear-smoke Bee-Smokers. No giving out. No fussing. No going out. No vexation. Descriptive Circular sent on receipt of Request Card.

Prices, by Mail, Postpaid.

Doctor Smoker (wide shield)	3½	inch..	$2 00
Conqueror Smoker (wide shield)	3	" ..	1 75
Large Smoker (wide shield)	2½	" ..	1 50
Extra Smoker (wide shield)	2	" ..	1 25
Plain Smoker	2	" ..	1 00
Little Wonder Smoker	1¾	" ..	65
Bingham & Hetherington Honey-Knife, 2 inch			1 15

☞ TO SELL AGAIN, apply for dozen or half-dozen rates. Address,
BINGHAM & HETHERINGTON,
27C2t ABRONIA, Allegan Co., MICH.
Mention the American Bee Journal.

CARNIOLAN QUEENS

A SPECIALTY. Largest and Purest Carniolan Apiary in America.
☞ Send for Descriptive Circular and Price-List. Address,
ANDREWS & LOCKHART,
9Ctf PATTEN'S MILLS, Wash. Co., N. Y.
Mention the American Bee Journal.

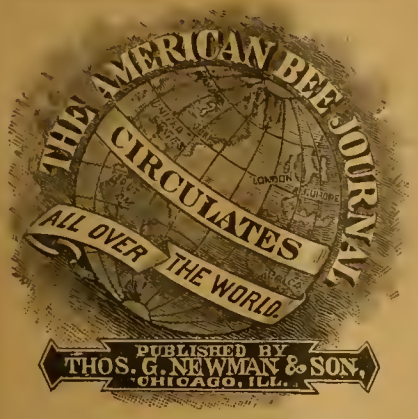
J. FORNCROOK & CO.,
MANUFACTURERS OF THE
"BOSS" ONE-PIECE SECTIONS,

Patented June 28, 1881.

WILL furnish you, the coming season, ONE PIECE SECTIONS as cheap as the cheapest.
☞ Write for prices.
Watertown, Wis., Jan. 1, 1889. 40C3t
Mention the American Bee Journal.

BEE-KEEPERS' SUPPLIES.

HIVES, Sections, Foundation, Smokers, Frames, Crates, &c., furnished at greatly reduced rates. Also **ITALIAN BEES and QUEENS** at very low prices. Send for my Catalogue. Address,
A. F. STAUFFER,
29Ctf STERLING, ILLINOIS.
Mention the American Bee Journal.



THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Aug. 10, 1889. No. 32.

EDITORIAL BUZZINGS.

All the Long August afternoon,
The little drowsy stream
Whispers a melancholy tune,
As if it dreamed of June,
And whispered in its dream.

The thistles show beyond the brook
Dust on their down and bloom,
And out of many a weed-grown nook
The aster flowers look
With eyes of tender gloom.

—*American Agriculturist.*

Ole J. Johnson writes us to send him a pamphlet, but while he puts "Box 100" in one corner, fails to state what post-office, county or State he receives his mail. We must therefore wait for further information.

Mr. Cowan, editor of the *British Bee Journal*, has just removed Mrs. Cowan from Switzerland to England, her health having much improved. It will be remembered that he lately brought her on a visit to America on account of her ill-health, and her many friends here will be pleased to hear of her convalescence. Mr. and Mrs. Cowan spend the month of August in Scotland, and September in Iceland, and will then return to England for the winter. Mr. Cowan writes that the weather in Europe has been generally excellent for honey.

A Little Three-Year-Old had the following experience with a bumble-bee recently, as described by Mr. D. R. Rosebrough, of Casey, Ills.:

The other morning Mr. James Emley's little three-year-old daughter was playing in the dooryard, where a big bumble-bee was working on some morning-glory bloom. The little Miss thought that she would take the bee in for a pet; but she soon dropped it, and went into the house crying, and said: "Mamma, I caught a big, yellow bug, and the dirty thing stuck a needle in my thumb."

Another Scientific Blunder.—The *Medical Standard* for June, 1889, published by G. P. Engelhard & Co., 69 Dearborn St., Chicago, contains as a leader, an article on "Embryology," by Edward C. Spitzka, M. D., of New York. The learned Doctor talks very knowingly of parthenogenesis, or "virgin generation," (*i. e.*, the development of living beings without a father), and then adds:

Bees, some butterflies, ants and wasps, notoriously multiply their kind without sexual congress. As a rule, the parthenogenetic offspring are themselves incapable of further procreating their kind.

But to this there are remarkable exceptions. The aphides multiply for many generations without the intervention of a male. Weigenbergh has shown that the silk-moth can be propagated as long as the male element is permitted to act at every fourth generation. The Artemia salma, a minute crustacean living in saline springs, reproduces its kind for years without a male being present; males being produced at definite intervals only (v. Siebold). Among the vertebrata parthenogenetic development has also been observed, though rarely reaching maturity. Thus segmentation occurs in unfertilized ova of the chicken (Oellacher), of the fish (Burnett and Agassiz), and of frogs (Moquia-Tanden). The author saw a blastoderm form in unfertilized ova of the toad-fish (Batachus tau).

The Doctor then proceeds to prove "that even the human ovum is capable of parthenogenetic development," and declares that "embryology, while declaring immaculate generation improbable, does not pronounce it impossible." However reasonable this may be, the learned physician is unfortunate in the following which he adduces as proof of the proposition:

A worker-bee is a highly-organized creature, with a well-developed brain, wonderful sense organs, intricate muscular apparatus, and yet it is an offspring of unimpregnated queen-bee. What is a regular occurrence in one class of animals is sometimes observed as an exceptional one in another class.

The astute Doctor **ought to have known** that a worker-bee is NOT "an offspring of an unimpregnated queen-bee!" Having made the subject of parthenogenesis a study, it is inexcusable for him to make such a *blunder*. An unimpregnated queen is only capable of laying drone (male) eggs —*she is utterly powerless to reproduce herself*, or to produce the worker-bees, which are undeveloped females! The worker-bees are able, under certain circumstances, to lay eggs, but as they are also incapable of impregnation, such eggs produce only males of doubtful use in the economy of nature.

Ignorance about Comb Honey.—It is amazing to notice the amount of wilful ignorance about comb honey that prevails among those who should know the truth concerning its production. We were forcibly impressed with this fact recently, while visiting a retail grocery in this city. Upon the counter we discovered a beautiful sample section of new honey, whose pearly-white and very even comb was encased with glass, showing all the contents of the section to the very best advantage possible.

Wishing to learn at what price the grocer retailed one-pound sections of honey, we enquired, and was told that it was "20 cents per box." We then remarked that it was a fine specimen of what the bees could do in their line of business, when the grocer, with a knowing (?) smile, said, "Oh, yes, it's nice honey, but then the *comb is manufactured*; at least that is what they tell me." And just because "*they* tell me," the stupid fellow believed it, and no doubt had so informed customers concerning something of which he did not have sense enough to know that what "*they tell*" is not always the truth.

We at once informed the grocer that there was no such thing as "manufactured comb," and that it was utterly impossible and impracticable to make honey-combs and fill them with honey; also, that there is now, and has been for years, a standing reward of $1,000 offered by Mr. A. I. Root, for a single pound of manufactured comb honey. We also have given him a copy of the BEE JOURNAL containing the denunciation of the malicious falsehoods about honey, published awhile ago by the Philadelphia *Record* and the Chicago *Tribune* and *News*; and which, we regret to be compelled to record, neither of those metropolitan newspapers have retracted, so far as we are aware. It is almost discouraging to fight such brazen misrepresentations, when such leaders of public opinion as the daily newspapers refuse to correct their slanderous statements, when they have been shown that their utterances were entirely wrong and wholly unwarrantable.

No Duty on Imported Queen-Bees.—An exchange has the following item relative to a package from Carniola, Austria, containing queen-bees. The Custom House officials ought to know that there is no duty on such. It says:

Collector Anderson, of Portland, Maine, received a notice from the post master at Mechanic Falls, saying that a sealed package had arrived there from Upper Carniola, Austria. It was marked "Supposed liable to custom duties." From the buzzing sound inside the package the post-master judged that it contained a queen-bee. According to the regulations, he notified the nearest collector of customs. Collector Anderson has instructed him to open the package, and if it contains nothing but a queen-bee, to deliver it as addressed. Queen-bees are not subject to duty.

Bro. Mason should teach the post-master at Mechanic Falls, Maine, not to be too officious. He ought to know that queen-bees are admitted into America free of duty. If it is *news* to him, then he will learn something.

Bees are not transmitted through the mails to all foreign countries from America as yet, but a proposition is pending which, if adopted, will admit them to the mails exchanged between all the countries of the Universal Postal Union. We will give timely notice to our readers whenever that matter is accomplished.

Miss Abbie Spencer, an enthusiastic bee-keeper, daughter of D. C. Spencer, M. D., of Augusta, Wis., and a subscriber of the AMERICAN BEE JOURNAL, died of consumption on July 18, 1889, aged 19 years. From her windows she eagerly watched the work in the apiary, and her ear could quickly discern the first notes of swarming. She calmly gave directions for the distribution of her little earthly effects, and died the death of the righteous. Her next younger sister, Hattie M. Spencer, now takes her place in the apiary, at least in part.

Dr. Spencer writes as follows concerning the honey crop: "Bees have done well in this part of Wisconsin. We have not had so good a white clover harvest for years as this season has given us, and the prospect is good for a good autumnal gathering."

Uniting Colonies.—N. A. Dahn, of Jefferson Co., Mo., asks the following question:

I would like to know when to unite bees—in the spring or fall. I have 20 colonies of bees, and I would like to double them up.

They should be united either in the spring or fall, as the "conditions" make it desirable. If they are weak in early spring, they may be united, so as to encourage them to breed up and be ready for the honey harvest. If they are weak at the end of the harvest in the fall, they may be united for winter to conserve heat and stores. It depends on the "conditions" more than on the "time." Consult a good Manual, which is a very convenient companion in every apiary. By the aid of its liberal index, you can determine when, what, and how to do things with ease as well as pleasure.

Convention in Chicago.—By notice on page 501, it will be seen that we are to have a convention of bee-keepers in Chicago this fall. The time is Oct. 16, 17 and 18. The place is at the Commercial Hotel, when we had such a nice time at the "National," in 1887. Reduced rates are given at the Hotel, and reduced rates may also be had on all the railroads, because it comes near the close of the Chicago Exposition. Every arrangement will be made for the convenience, comfort and pleasure of those who attend. Let there be a generally rally, and "a good time" will be the result.

Ells & Co., Chicago, are advertising recipes for making artificial honey, among other useless recipes for artificial humbugs. Look out for them. They are flooding the mails with their circulars—looking for "dupes." Do not be "fooled" with their artificial traps.

Heavenly Echoes is the title of the piece of music given this week, and it is a delightful song. We hope all our many readers will learn to sing it, for the words and music are alike enchanting. *We promised another treat in that line, and here it is.*

Why Vote for Golden-Rod.—The writer of "Rural Notes" for the Hartford *Times* (Conn.), asks why bee-keepers should vote for golden-rod for the National Flower. Golden-rod should be voted for by bee-keepers in preference to any other flower, because of its usefulness to the bees in yielding honey. During the fall months thousands of colonies derive the principal part of their winter stores from it. Prof. A. J. Cook pronounces the flavor of the golden-rod honey "unsurpassed by any other." Making it the National Flower would give it better protection, scatter it more thoroughly over the country, increasing its usefulness to bee-keepers. At a recent meeting of school-teachers in this State, golden-rod received 16 votes and the the laurel 19, which shows that golden-rod has other admirers than the honey-bee.—*The Bee Hive.*

Comb Honey Fumigation.—M. Miller, of Le Claire, Iowa, asks these questions, and desires answers in the AMERICAN BEE JOURNAL:

How often should comb honey be fumigated; that is, how many days should elapse between each fumigation?

Should it be fumigated as soon as taken from the hives?

Should all of the cells around the edges of the section be sealed before the heney is removed from the hives; that is, should the last row of cells next to the wood of the sections, especially at the top, be all sealed over?

Deeming the subject a timely one, we have procured an article from Mr. Doolittle on the subject, and it may be found in this issue. It answers the above questions, and also those sent in by others. See page 504.

We have received a copy of the "New Bee-Keepers' Text-Book"—27th edition. It is revised, enlarged and illustrated by John Aspinwall, New York. It was sent to us by the present proprietors, J. B. Mason & Sons, Mechanic Falls, Maine. It contains 228 pages, and is nicely bound in cloth. Price, 75 cents in cloth, or 50 cents in paper covers. It is simple in language, can be easily understood, and is therefore just the thing for beginners. For sale at this office.

Extracted Honey.—Mr. F. Wilcox, Mauston, Wis., July 30, 1889, asks:

In selling extracted honey in wooden pails or other similar packages, is it customary to *tare* the pails, or are they weighed and sold by the pound with the honey they contain?

In selling extracted honey it is customary to *tare* the honey-receptacle, no matter what the kind or the material of which it is made.

The Address of Geo. Neighbour & Sons will hereafter only be 127 High Holborn, London, W. C., England. They have discontinued their business on Regent Street. It is an old and reliable firm, and it is always a pleasure to do business with them.

A New and Effectual Cure for so-called foul brood is announced in the *British Bee Journal* for July 18, 1889, in the following paragraphs. If it is as potent when administered to larger quantities of diseased colonies, as it was in the individual case described, it will be a valuable remedy, because of its simplicity, and the very little work necessary to apply the remedy. We expect fuller particulars soon, and will then lay them before our readers. Our British cotemporary says:

I have just cured a colony of foul brood in three weeks without feeding or destroying an atom of comb or any larvæ. When I started it was full of dead larvæ, and cells full of putridity. Now it is one mass of healthy larvæ, without the slightest sign of disease. If it answers on all colonies as it has done in this, foul brood will be soon banished from everywhere. It is something quite fresh, not entirely my own doings, although the experiment was entirely conducted by myself. It is really marvellous. I am quite excited over it. You have no conception of the change in the colony from its (the cure) first application, without even opening the hive after the first time.

[We have received the above communication in a private letter; but the announcement it contains is so pregnant with bright hope that we have ventured to give it publicity, in order that our correspondent, who is one of our most advanced bee keepers, should have whatever credit or advantage may accrue from priority of publication.—ED.]

A Privilege.—C. F. Thomas, of Dorchester, Nebr., on July 17, 1889, writes as follows:

I have been thinking for a long time past that it was my duty as well as privilege to help pay the expenses of the fight on bee-keepers' rights, and to become a member of the Union, but with me; it is as with lots of others, I presume—it has been neglected from time to time. The Manager has done good work, and is entitled to the support of every bee-keeper in the country.

Yes; Bro. Thomas is right. It is not only a *duty*, but a privilege for bee-keepers to join the Union, which has accomplished so much good in defending our pursuit.

Fun.—The *American Agriculturist* for August has an engraving showing some hives of bees on a bench, and a boy from the city leans over the bench between the hives, and says, "I smell honey." A farmer who is raking hay near by remarks: "You will smell something warmer than honey, if you don't get out of there pretty quick."

The British Bee Journal has been reduced in price to one-penny, or about one-dollar a year. It is published weekly, and is well edited and printed. The extra postage to America is 50 cents. It will be clubbed with the AMERICAN BEE JOURNAL in the United States and Canada for $2.40.

The Third annual Territorial Fair of North Dakota will be held at Grand Forks, Sept. 17 to 21, 1889.

Blessed are the Poor.

Written for the Illustrated Home Journal
BY EUGENE SECOR.

Ye toilers for bread in the world's busy field,
All the avenues of Industry thronging ;
Complaining, perhaps, that your toil does not yield
The riches for which you are longing.
O little ye dream of the blessedness given
To the *poor* of this world, by our Father in heaven.

The *rich* are not of necessity blest,
Nor free from dull care, nor from sorrow ;
Ambition for wealth oft begets an unrest
That blights the sweet hopes of the morrow.
No poverty eats so into the soul
As selfish greed, when it once gets control.

I have seen a rich worm, by some called a man,
And whose acres by hundreds were numbered ;
Who had but to speak and his hired lackeys ran,
And whose happiness *seemed* unincumbered ;
But poor as a pauper in generous deeds,
With a soul too narrow to feel men's needs.

Another I knew whom the world called poor,
Who scarce had the means for his burying ;
But no worthy man was ere turned from his door
Whose case could be bettered by tarrying.
His heart beat responsive to every kind thought,
And the world was made better by the good that he wrought.

Then blessed are the poor in this world's sordid gains,
If but wealthy in mind and heart treasures ;
And happy are they who feel not the dull pains
Of the seekers for gold and its pleasures.
The honors of lucre are empty and vain.
Good works are sure riches—contentment is gain.

Forest City, Iowa.

Convention Notices.

☞ The Northwestern Bee-Keepers' Society will hold its annual convention at the Commercial Hotel, corner of Lake and Dearborn Sts., in Chicago, Ills., on Wednesday, Thursday and Friday, Oct. 16, 17 and 18, 1889. Arrangements have been made with the Hotel for back room, one bed, two persons, $1.75 per day, each ; front room, $2.00 per day for each person. This date occurs during the Exposition, when excursion rates on the railroads will be very low. There has been a fair crop of honey in the West, and an old-time crowd may be expected at this revival of the Northwestern from its "hibernation."
W. Z. HUTCHINSON, *Sec.*

☞ The fifth semi-annual meeting of the Susquehanna Bee-Keepers' Association will be held at New Milford, Pa., on Saturday, Sept. 14, 1889, at 10 a.m. There will be essays on different subjects, and also a question-box. Bring your wives along, and please invite your neighbors who are interested in bee-keeping, to come with you. If you have anything new, or that would be of interest in any way, of implements or fixtures, bring them, so that all may see them.
H. M. SEELEY, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec. Brantford, Ont., Canada.

☞ The Northern Illinois Bee-Keepers' Association will hold its next meeting on Aug. 20, 1889, at R. Marsh's, in Guilford Township, 4 miles northeast of Rockford, Ills.
D. A. FULLER, *Sec.*

Subscribers who do not receive this paper promptly, will please notify us at once.

QUERIES and REPLIES.

Allowing for Drone-Comb in Making Comb Foundation.

Written for the American Bee Journal

Query 647.—1. When a sheet of foundation 8x17 inches will stretch ¾ of an inch with a new swarm, where will the drone-comb come in? 2. Ought not the ¾-inch be allowed in rolling foundation?—Ills.

1. Principally along the edges. 2. Yes.—M. MAHIN.

I do not think that I understand this question.—A. J. COOK.

I have had little experience with foundation.—MRS. L. HARRISON.

1. At the top, if not wired. 2. I think not.—G. L. TINKER.

At the bottom, sides and top—there is always room for drone-comb.—WILL M. BARNUM.

Wire your frames, and you will have very little trouble.—C. C. MILLER.

The drone-cells will be constructed around the margin, and the bees will take advantage of the *stretched* cells in the foundation.—J. P. H. BROWN.

I never had foundation to stretch half that much. It should not. I infer that you mean to put the sheet which you describe, in a horizontal position.—JAMES HEDDON.

1. Allowing your supposition to be true, I should think that there is just where drone-comb could "come in." 2. I do not understand what you mean.—EUGENE SECOR.

Bees will always find places for drones, by cutting down worker-cells if no other room is available. Foundation 8x17 inches allows the ¾ inch in the Langstroth frame. It is not advisable to give unwired foundation to new swarms.—P. L. VIALLON.

1. Wire your frames, and there will be no stretch, but drones will be reared in sufficient quantities, nevertheless. 2. If you wire your frames properly, no.—J. M. HAMBAUGH.

1. On the outside ends, just where it does not stretch much. The cells will stretch out of shape about one inch from the top-bar, but you will seldom find drones in such cells. 2. I do not think that I understand your second question.—H. D. CUTTING.

1. The drone-comb will be near the top, if there is any. Hang your foundation so that two sides of the cell are perpendicular, and it will sag less than otherwise. 2. We do not understand this.—DADANT & SON.

1. It would not "come in"—there would generally be a few rows of cells just under the top-bar, misshapen by stretching, and would then be neither drone nor worker comb. 2. For various reasons, that would be impracticable.—R. L. TAYLOR.

1. If a horse will travel eight miles in an hour, what will a ton of hay cost? Foundation 8 inches wide, that stretches ¾ of an inch, is "no good." 2. No. Use good foundation, and if wired, all the better.—A. B. MASON.

If a sheet of this size stretch ¾ of an inch, the bees can use the cells very well to rear drones. I have seen just such combs full of drone-brood. Foundation should be wired, or heavy enough to prevent much stretching.—C. H. DIBBERN.

Such stretching results in such shaped cells in the upper half of the frame that they are of no earthly use to the bees except to store honey in. This was one of the reasons that led me to decide against the use of foundation in the brood-nest, but not the main reason, however.—G. M. DOOLITTLE.

Good foundation, properly used, will not do that way. Foundation cannot be rolled as suggested, but might be so made in a press, but *then* if it did not stretch as anticipated, the difficulty would be as bad as the one sought to be avoided. It is not safe to figure on the stretch of anything.—J. M. SHUCK.

1. I do not find that foundation of proper thickness, say 5 or 6 sheets to the pound, will stretch so as to do any harm. Wiring the frames will prevent it. It strikes me that an attempt to obviate the difficulty in rolling the sheets, would not be likely to prove a success, as the stretching in any case would be uneven, and so could not be rectified in that way.—J. E. POND.

1. If properly managed, a sheet of foundation should not stretch over ¼ of an inch, and this should not affect the size of the cells. If you do not know how to get good, straight, all-worker combs from sheets of foundation, without wiring the frames, you had better use wire ; or, what I think is a better way, have your combs drawn out in the upper stories of the hives, where they are not so heavily weighted by the bees. If I want to hive a swarm on full sheets of foundation, I cut the sheets in two in the center, and lap the edges ¼ of an inch, and weld them together ; this center rib will hold the sheets in position with the weight of the bees.—G. W. DEMAREE.

1. Even passably good comb foundation does not stretch like that. Drone-comb will be built around the edges. 2. To calculate on the stretching, and to make accordingly would be very unreliable and unsatisfactory.—THE EDITOR.

HEAVENLY ECHOES.

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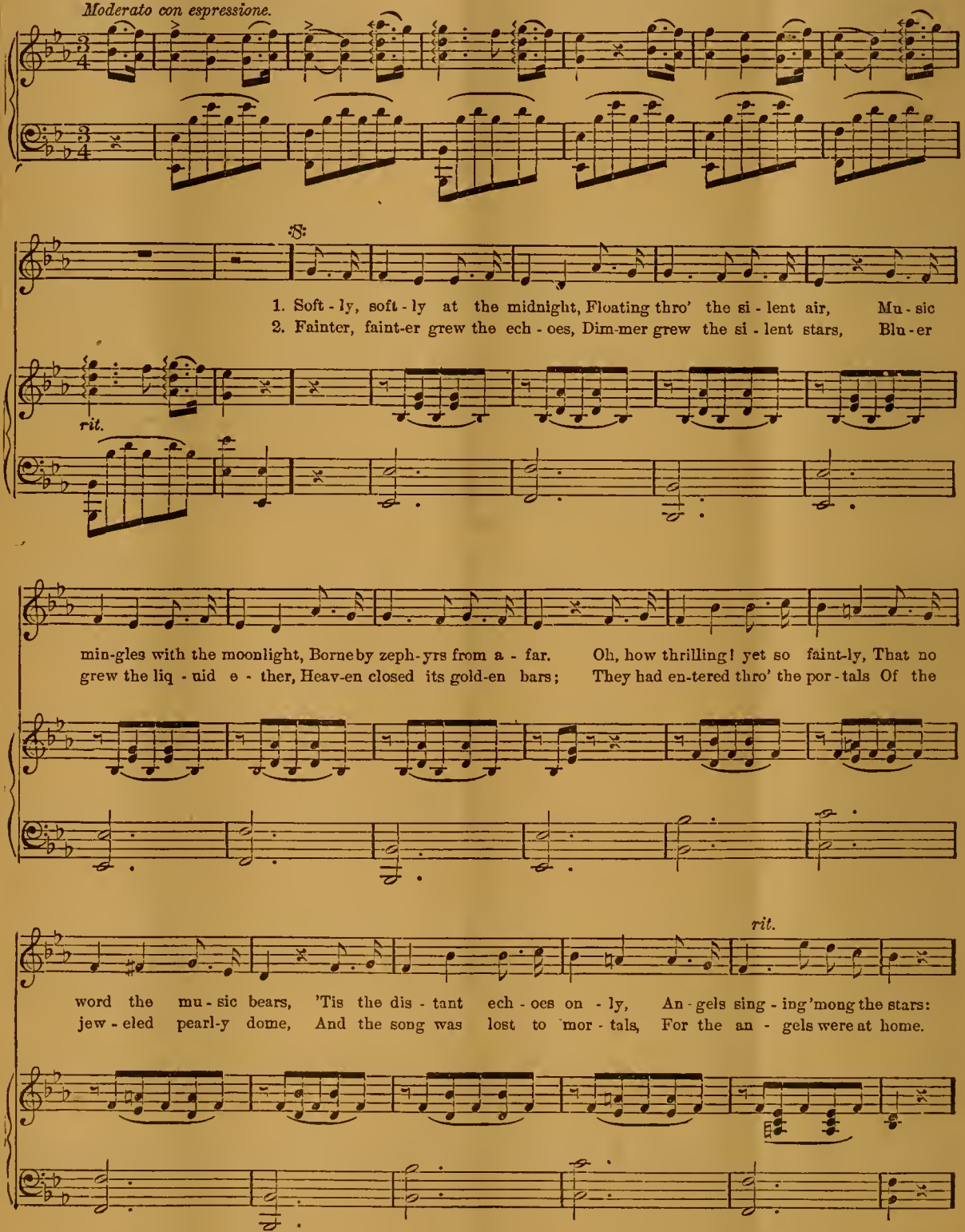
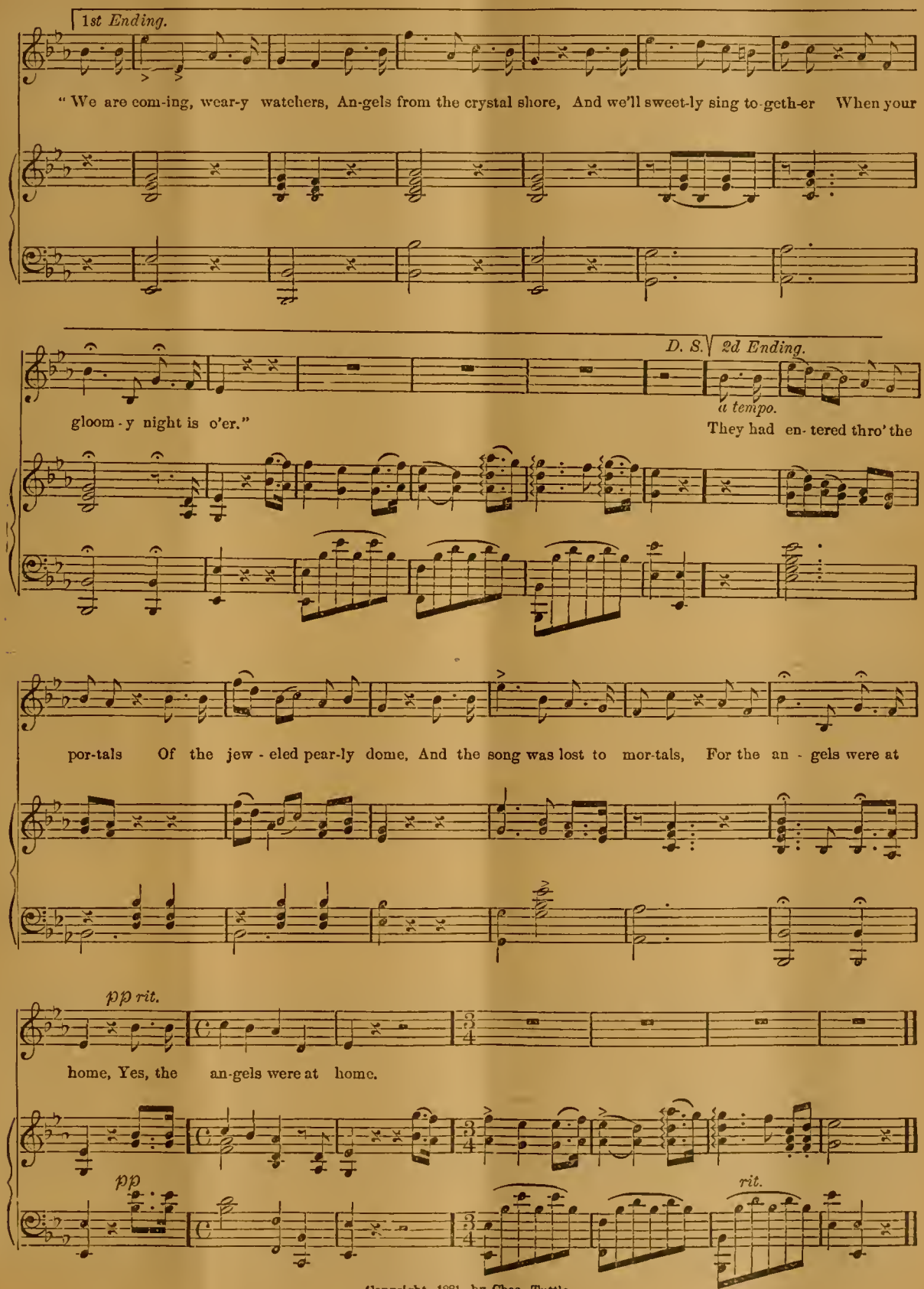
Words by ALICE SWEET. Music by Mrs. L. KESSINGER.


Moderato con espressione.
1. Soft - ly, soft - ly at the midnight, Floating thro' the si - lent air, Mu - sic
2. Fainter, faint-er grew the ech - oes, Dim-mer grew the si - lent stars, Blu - er
rit.
min-gles with the moonlight, Borne by zeph-yrs from a - far. Oh, how thrilling! yet so faint-ly, That no
grew the liq - uid e - ther, Heav-en closed its gold-en bars; They had en-tered thro' the por - tals Of the
rit.
word the mu - sic bears, 'Tis the dis - tant ech - oes on - ly, An - gels sing - ing 'mong the stars:
jew - eled pearl-y dome, And the song was lost to mor - tals, For the an - gels were at home.


1st Ending.
"We are com-ing, wear-y watchers, An-gels from the crystal shore, And we'll sweet-ly sing to-geth-er When your
D. S.
2d Ending.
a tempo.
gloom-y night is o'er."
They had en-tered thro' the
por-tals Of the jew-eled pear-ly dome, And the song was lost to mor-tals, For the an-gels were at
pp rit.
home, Yes, the an-gels were at home.
pp
rit.

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CORRESPONDENCE.

COMB HONEY.

Caring for Comb Honey After it Leaves the Hive.

Written for the American Bee Journal

BY G. M. DOOLITTLE.

Two questions have been sent to me regarding the care of comb honey, the first wanting to know if honey can be taken from the hive before all the cells next to the wood are sealed up; and the second, desiring to know about the moth-worms on comb honey in sections, and how they can be got rid of. As these questions can best be answered by an article, I will give in brief how I manage comb honey after taking it from the hives.

The first requisite for caring for honey after taking it from the hives, is a good, warm room in which to store it. I use a room 7x10 feet, in the southwest corner of my shop, having the outside painted a dark color, so that the rays of the afternoon sun will make it as warm as possible.

Some use an upstairs room, which will generally be warm enough without any pains being taken with it, especially if this room is under the south roof of the building, with no partition between the roof and the room. The only objection that I have to such an upper room, is the amount of heavy work it makes in lugging the honey up and down the stairs.

As a body of honey, once thoroughly warmed, will hold the heat for a long time, the average temperature of such a room will be pretty high, ranging from 80° to 100° most of the time, thus ripening the honey splendidly. The object of this is to have the honey growing better, instead of poorer, from the moment that it leaves the hives, and have the honey in those unsealed cells around the outside of the section next to the wood (which is spoken of above) grow so thick that it will equal any in the section. These unsealed cells next to the wood of the sections are rarely all ever sealed up, and to wait for them to be so, is only a waste of time; so I take off my honey as soon as the honey in the body of the section is fully capped over.

When the honey is taken from the hives, that in the unsealed cells is so thin that if the section is held so that the mouth of the cells are down, it will leak or run out badly; but by leaving it in a warm room for a month, it can be handled as we please, tipping it over, etc., and not a drop of honey will run out; and if after it gets to market, it is stored in a damp, cool place, it will be some time before it will take on moisture enough to affect it to any great extent.

Perhaps all will not agree with me, but I think that all comb honey should be stored in such a room at least a month before crating, to ripen and sweat out. I know that it is a saving of time and labor to crate it at once; but I think that it pays for all of this extra time and labor, in the better quality and appearance of our product.

Having the honey placed in a warm room, the next thing that will need our attention will likely be the larvæ of the wax-moth, which brings us to the second question.

Comb Honey and Moth-Larvæ.

After the honey has been away from the bees for about ten days, where placed in a warm room, if we inspect the cappings of the honey closely, we will detect little places of white dust, resembling flour, upon the surface of the comb, and usually most abundant near the bottom of the section. Although the moth is not as troublesome as it used to be, still it is always well to keep a good lookout for it; and although this place resembling flour may not be larger around than a fine needle, still it tells us for certain that a tiny worm of the wax-moth is there, and that unless it is killed, it will destroy more or less of the nice, white comb which encases the honey.

While in one of our cities a number of years ago, I saw sections of honey which had worms in them as large around as a slate-pencil, and an inch or more long, which had nearly denuded the honey of the nice white cappings to the cells, making the honey an object of disgust, rather than of attraction, the same caused by the producer not knowing how to detect the first appearance of the worms, or being too shiftless to kill them after he had found them; or, perhaps, being in too big a hurry to rush his honey to market, instead of ripening it as I have advised.

If, after several examinations, you fail to find such little, white, flour-like places, you may well be glad, for it is no small task to keep the worms from honey during the latter part of the summer and fall, where they are as plenty as they were here 15 or 20 years ago.

If you should find these flour-like places, the next thing is to sulphur the honey. To best do this, the honey should be stored on a platform, which I build as follows:

Take pieces of 2x12 inch plank, and cut them 3 feet and 9 inches long, and spike two pieces together, thus making a stick 4x12 inches, and 3 feet and 9 inches long. Use three of these on a side, the platform running the 7-foot way of the room. These are set the 12-inch-way up, and on them are laid four 3x4 inch pieces 7 feet long. Across these last pieces are laid sticks 3 feet and 9 inches long, by 1½ inches square, they being placed so that the sections will stand on them the same as they did on the hive, and have the ends of the sections meet in the centre of these 1½x2½ sticks. Piled in this way the fumes of burning sulphur can penetrate the whole pile, by placing sulphur under it.

Having all in readiness, put some ashes in an old kettle, so that there will be no danger from fire resulting from the heat from the coals, which are to be placed therein.

Take the kettle of coals to the honey-room, and pour sulphur (which has been previously weighed) on the coals, to the amount of one-fourth of a pound to every 75 cubic feet contained in the room; when the kettle is quickly pushed under the pile of honey, and the room closed. Leave it thus closed for 15 minutes, when it should be opened to let the smoke out, for if it settles on the combs, it will give them a greenish tint.

Just how the eggs of the moth get into the surplus apartment of the hive, is not known, but it is supposed that they are carried there on the feet of the bees. Combs having pollen in them are more subject to the moth than are those having no pollen in them; therefore, those having pollen should be kept separate from the main crop of honey. If more honey is put into the room later, sulphur it again ten days after putting in.

Borodino, N. Y.

HONEY SHOWS.

How to Make a Good Display—One that Will Attract.

Written for Gleanings in Bee-Culture

BY R. M'KNIGHT.

There has been a good deal in the bee-papers of late, respecting the best method of arranging for and setting up honey shows. If these be made large and attractive, they serve a good purpose in promoting the interests of bee-keepers by attracting attention and promoting sales.

To do the work well, is no easy matter. This arises mainly from the absence of variety in the article shown. Extracted honey is extracted honey in whatever form it may be shown. Monotony can be broken only by variety in the design of the packages in which it is put up, which is in itself limited.

The same may be said, but in a still more marked degree, of comb honey.

I suppose the main object the writers have in view in these articles is to aid bee-keepers in making good displays at local fairs. It is noticeable, that those who have treated the subject describe the methods followed by themselves or those they have seen adopted by others, which have met their approval.

At honey-shows the competitive prizes are usually confined to the *quality* of the article shown, and it is upon this that judges usually base their awards. This is right as far as it goes, but the prime object of honey-shows is to attract attention and advertise the goods.

As 90 per cent. of the visitors at fairs cannot tell, by cursory inspection, between what is good and what is poor in quality, it follows that attention should be given to appearance. To this end, a departure from the usual rule cannot be made too soon. Prizes should not be confinded to quality. Good taste and neat arrangement should come in, be recognized, and rewarded. This may be done without injustice to any one. A man with 200 pounds of honey may make as neat, tasty, and symmetrical a display on 3 feet space as one with 4,000 pounds can make on 20 feet of space.

Any hard and fast rules laid down for the form of staging, upon which exhibits are to be set up, are entirely useless. It is manifest, that, to do justice to all, no competitor should have advantages over his fellows in a more advantageous arrangement of the frame-work upon which the show is to be made. It follows, then, that whatever the design, the staging should be uniform throughout. The taste and ingenuity of the respective exhibitors will then be brought into play in the superstructure he raises to show his wares.

Most of the designs I have seen for staging are after the step-ladder style. To my thinking, this is the worst form in which staging can be built for honey-shows. It gives little or no opportunity for the exercise of judgment, or the display of ingenuity in the make-up of an exhibit. If "variety is the spice of life," it should have a place in all honey-shows. Little of it can be thrown in if this style of frame-work is employed.

What, then, is the best form for the permanent fixtures in a building where honey is to be displayed? Where a number of people are to compete, the simplest is the best—at least this is my opinion, and the simplest is common tables. These should not be less than six feet wide. Space upon these should be allotted, in proportion to the quantity each has to show. Then each will be called upon to build up his own superstructure and decorate it. It is easy to understand, that by this arrangement variety will be secured; for every man will have his own notion of what is most suitable.

These superstructures will take different forms in proportion to the amount of honey and the character of the packages to be placed upon them. I hold that no man can have a correct notion of what is the best form in which his exhibit should be arranged, without a full knowledge of what is available to make it with. How can a man suggest a design for his neighbor's show, without a knowledge of what his neighbor had to show?

Owen Sound, Ont.

VIRGIN QUEENS.

Safe Methods of Introducing Virgin Queens.

Written for the American Bee Journal

BY G. W. DEMAREE.

No important manipulation of bees seems to be so poorly understood as that of utilizing *virgin queens* in the stocking of the apiary, or in furthering the interest of the queen-traffic. Most apiarists imagine that because a virgin queen cannot with any certainty—except the certainty of failure—be dumped into a hive among queenless bees, the whole thing is impracticable.

Then, again, they are puzzled because a virgin queen that has just cut her way out of the cell, may stagger in among any queenless bees unnoticed and unmolested, while if she is detained until she is several days old, she will be treated as a disturber of the peace, and usually "balled" and killed. Let us look at this matter a little as it applies to the economy of the propagation of the race.

When a colony prepares to cast a swarm, the bees do not "hew to the line," and rear just the number of queens that will be needed to carry out the enterprise, but nature displays a profuseness sometimes in connection with swarming, that astonishes the old veteran himself. A "surplus" of virgin queens becomes a disturbing element in the settlement of life in the economy of the honey-bee. Every close observer has seen swarms of bees with a half dozen or more virgin queens with them, and have seen the swarms divide into two or more clusters when they "settle."

Sometimes such swarms are unmanageable until the disturbing element is removed by the apiarist. Such swarms will often sulk when hived with all the young queens, and finally "run off" because of their unsettled state, and discontent. I lost a large swarm (the colony having superseded the old queen) the present season from this cause.

The *why*, then, that queens, after they become old enough to be a disturbing element are instinctively rejected by queenless bees, is apparent enough, and this instinctive suspicion and hatred of virgin queens by the workers, when they approach the mating period, stands in the way of easy or careless manipulation. The apiarist must understand the instincts and habits of bees in this connection, to enable him to overcome the difficulties in the way.

When a laying queen is taken away from a colony or nucleus, a period of time must follow when the worker-bees despair of finding the lost queen, and before queen-cells are started. At this stage of things, a queen—either a virgin or laying queen—will usually be accepted with tokens of gladness. This crisis takes place in about six hours after the queen has been removed, but as the time varies considerably, I take the precaution to cage the queen on top of the frames where I can see the actions of the bees towards her, by simply turning up the quilts.

If I find the bees (when the quilt is first turned up) clustering on the cage, and biting at the wire meshes, the queen is left in the cage for a reconsideration. At such time as the cage is found nearly deserted by the bees, and only a few bees are found crawling over the cage with the careful circling motion, like bees guarding a queen-cell, the queen will be safe, whether a virgin or a laying queen, and the bees may be permitted to liberate her by eating out the soft candy.

These proceedings are governed by the intelligence of the apiarist, and luck or chance has little to do with it. I frequently introduce virgin queens old enough to mate, in this way. I had a virgin queen mated on the fourth day after removing a laying queen, the present season. Of course there are failures where there are opposing forces to overcome.

Safer Way of Introduction.

Prepare a hive by hanging in it a frame of hatching brood—no unsealed brood is admissible; put by its side an empty comb, and a division-board, and close the top of the brood-chamber with a close-fitting cloth, and close the entrance to the hive so as to exclude the light at that point. Now turn back the cloth and shake into the hive a quart or more of bees—from one or

more frames taken from any strong colony—and fit down the cloth so that the hive will be bee-tight. It is needless to say that care must be taken not to get the old queen along with the imprisoned bees.

Leave the bees in their prison for six hours, and then turn up one corner of the quilt just a little, and let the virgin queen run in among the imprisoned bees. If of any eligible age, she will be gladly received.

Leave the bees imprisoned for 36 or 48 hours, and open the entrance a little while after sunset. The queen will *mate* in a few days after the bees are liberated. This plan has never failed under my direct supervision.

A Safe Way of Introduction.

When we receive a virgin queen through the mail, or have a valuable queen of any kind to introduce, we do not want to take any risk, and I here give the plan.

I have devised what I call an "introducing nursery." It is a super of standard size, that has two partitions in it, and a wire-cloth bottom, so as to give three apartments, all bee-tight and separate from each other. Some strips of enameled-cloth tacked fast to the partitions at their top edges admits of opening or closing any one of the departments without interfering with the others. The wire-cloth bottom is tacked fast to the lower edges of the partitions, as well as all around the rim of the super so as to make the whole, as well as each separate department, bee-tight.

To use it, a slat honey-board made with narrow slats, is put over any strong colony. I put mine on top of the storing super, so as not to interfere with the usefulness of the colony that is to furnish the necessary heat, and then set the "introducing nursery" on the slat honey-board. The honey-board prevents the bees below from propolizing the wire-cloth bottom to the nursery.

When I want to introduce a virgin queen of several days old, a frame of rapidly-hatching brood, after clearing it of all hatching bees, is hung in the nursery, and the virgin queen is immediately turned in on the comb, and and all is closed up closely. In three, four or five days the comb will be covered with young bees, and the queen will be at home with them. The comb is now moved to a hive, together with the adhering bees and queen, and another comb and a division-board is added to make up the usual nucleus. The queen will mate in a few days. There is the least possible risk when following this plan.

Christiansburg, Ky.

MARKETING.

How to Dispose of the Surplus Honey Crop.

Written for the Michigan Farmer

BY GEO. E. HILTON.

The time of year is now at hand when we should begin to arrange for our exhibits at fairs, especially county fairs, and I hope that every county fair in the United States will have a honey exhibit. Space can be secured by applying to the managers now, and although there may be no premiums offered, if you make a good exhibit this fall you will have no trouble in getting premiums for another year. I urge this course, because there is no better way to advertise and sell your honey. You can undoubtedly get permission to sell on the last day, and perhaps all through the fair, providing you do not sell your exhibit until the last.

To sell successfully at fairs, you must have hundreds of small packages that you can sell for five cents each. The Canadians have a little tin receptacle that holds one ounce, that they give away, and it invariably sells from one to ten pounds of extracted honey.

Then, to introduce their comb honey, they have plates and a one-pound section on each, cut from corner to corner, leaving one-fourth of the comb sticking to each side of the section; these they sell for five cents each, thus realizing 20 cents a pound for their comb honey, and sending out one of the best advertising mediums in the world. Their cry is, "Honey on a stick, five cents a lick." I do not know that it has ever been tried in the United States, but I see no reason why it would not work; in fact I know that it will, and it makes a much more palatable sweet for the children, than poisonous candies sold at such places.

Perhaps there are localities where fairs will not be held; in that case, in the fall it is an excellent plan to take a horse and wagon, load up with honey, and go right through the country; get acquainted with your more distant neighbors, and you will be surprised at the amount of honey you will sell, and the amount of pleasure you will receive. I like to get all the pleasure I can out of my work—it shortens the days, and lessens the burden very materially.

Perhaps some will object to this latter plan, because it savors so much of peddling; but after trying it once, you will find it a real pleasure, and a rest from the usual routine of work, and you are doing good; at the same time you are disposing of your honey at remunerative prices.

The main honey-flow is now over, and you should begin to crowd the bees down by removing all the finished sections of comb from the two crates now on the hives, and putting all the unfinished ones into one crate, with a view of getting them finished up and avoid carrying over so many unfinished sections until another year. This has a tendency to make the bees store honey in the brood-nest for their consumption during the coming winter. This may seem a little early to commence to prepare for winter, but it is the only safe way.

There are those who recommend and practice taking all the honey gathered by the bees, then feed them sugar syrup for their winter stores; but I cannot recommend this plan. If I find any of my colonies short of stores, they are fed extracted honey until supplied. By taking this course, or giving them combs of sealed honey, you will hear less about adulterated honey.

I want to call attention to the Detroit International Fair and Exposition, to be held at Detroit from Sept. 17 to 27 inclusive. There will be a large apiarian and honey display there, and the premiums are liberal. I certainly hope that the bee-keepers of Michigan will show to their sister States, and to the world, that we are up with the times. I shall expect to do something, and be in attendance at least a portion of the time. You can get a premium list and full particulars by addressing C. W. Bobinson, General Manager, 7 Merrill Block, Detroit, Mich.

Fremont, Mich.

HIVES.

Discussion on Small vs. Large Brood-Chambers.

Written for the American Bee Journal

BY W. Z. HUTCHINSON.

The last article by Mr. Dadant, on page 488, calls for but little in reply, except a few words of explanation.

It is possible that I was not *strictly* fair in saying that I had used hives holding 33 American frames. It was done by using hives three stories high, allowing the queen to rove at will through all three of the stories; and she, in several instances, had brood in all of the stories. As we were discussing the size of brood-nests, and as this method allowed the queen to extend her operations as far as she pleased, I felt justified, in this connection, in saying that I had used hives containing 33 American frames.

Still, as I have said, perhaps it was not fair. In the light in which we were discussing the question, that of large *vs.* small brood-nests, I think

that it was admissible; but, if I am wrong, I am willing to be set right.

In regard to quilts: I have several times bought bees in the spring in such hives that quilts were a necessity. When the bees were brought home, and the wire-cloth covering taken off, the frames were covered with a quilt. The bees were soon transferred to more fashionable hives, and the quilts removed; and this is the extent of my using quilts. When I wrote that I had never used them, I meant that I had never deliberately introduced them into my apiary, and given them an extended trial; and when I wrote later, that I had not used them *to any great extent*, I was simply being very precise, because this point was under criticism.

I am not particular whether Mr. D. tells whether he can extract the honey from a large hive with as "little labor" as from a small one, or whether he can extract it "as soon as" he can from a small one; and the fact that an Illinois man can care for eight apiaries, while a Michigan man employs a man in each apiary, does not touch the point.

The last article by Mr. Dadant is too much given to hyper-criticism, to evasions, to quibbles, to hair-splitting, and, more than all, to accusations of untruthfulness; and when discussion has reached this plane, it is time that it was dropped. Besides, to continue it now would be to give my opponent an unfair advantage, as I have unbounded confidence in his integrity and veracity.

Flint, Mich.

[Both sides having now had three articles each, and the discussion having degenerated to personalities, this article will end it in our columns.—ED.]

SWARMING.

Eggs from Laying Workers are Useless.

Written for the American Bee Journal

BY BRUCE KNIGHT.

Having discovered a strange performance in one of my new Italian colonies, I will relate the case, which I desire answered in the BEE JOURNAL.

I first discovered that the hive was being filled with drone-comb, and then I thought that the queen was a drone-layer; but after securing a new queen from a nuclei, I tried to introduce her, but I could find no old queen. I looked several times, but she could not be found. There was any amount of eggs—sometimes four or five in a cell—but what puzzled me was the queen-cells that they had started. The queens were well along, some almost ready to seal over. I believe that there must have been laying workers. I did not think that queens could be reared from their eggs; and upon looking at them in a few days, I saw that they had torn down the cells.*

Experience in Hiving Swarms.

I wonder why it is, that when a bee-keeper has a swarm of bees in a hiving-box, and meets people, they will give the bee-keeper the whole road, without a word. This was my experience a few weeks ago. It was after I had chased the bees for half a mile or so, and had succeeded in stopping them in the middle of the town. I succeeded in getting them into a hiving-box, and then started toward home.

It surprised me to see how everybody rushed out of my way, just as if I had been a cyclone; until I met a young German, who was just starting out to work. He evidently did not see the bees, for his eyes were on the red handkerchief which, I afterwards found, contained his clothes. One bee, which was rather inclined to be cross, darted forward, and met the young fellow about ten feet away (I was very thankful that he was no closer); the poor fellow jumped up in the air, and said something which I could not understand, but it sounded very much like swearing. He then swung his hat and budget around his head, and started on a bee-line across the field; so did the bees.

He had not gone ten yards before the budget became untied, and there was a terrible spill of its contents, and also of the poor fellow's wrath. The last I saw of him he was gathering his clothes up in his waist-coat, wiping his face with his handkerchief, and muttering something in German about "dem pees." The foregoing incident occurred on May 25, and with my first swarm. I have taken 60 pounds of honey from that same colony this year, and have had all that I could do to prevent it from swarming. This is the "Italian" of it.

Utica, Mich.

[*The colony doubtless had laying workers, the eggs of which would not produce worker-bees nor queens.—ED.]

New Posters for the AMERICAN BEE JOURNAL, printed in two colors, have just been printed, and will be sent free to all who can use them. They are very handsome, and will "set off" an exhibit at Fairs. It will tell Bee-Keepers how to subscribe, for "Subscriptions Received Here" is quite prominent at the bottom.

We will also send sample copies of the BEE JOURNAL, for use at Fairs, if notified a week or ten days in advance where to send them.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Aug. 20.—Northern Illinois, at Guilford, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

Aug. 31.—Haldimand, at Fisherville, Ont.
E. C. Campbell, Sec., Cayuga, Ont.

Sept. —.—Maine, at Livermore Falls, Me.
J. F. Fuller, Sec., Oxford, Me.

Sept. 5.—Erie County, at Buffalo, N. Y.
O. L. Hershiser, Cor. Sec., Big Tree Corner, N. Y.

Sept. 14.—Susquehanna Co., at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Oct. 16—18.—Northwestern, at Chicago, Ills.
W. Z. Hutchinson, Sec., Flint, Mich.

Dec. 4, 6.—International, at Brantford, Ont., Canada.
R. F. Holtermann, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER-BOX

Moths in Comb Honey.—Mrs. P. W. Minthom, Elsinore, Calif., propounds the following questions:

What is the cause of moths in white, new comb honey? How can we prevent them? How can we get rid of them? The honey has been out of the hives but a few weeks. It was put into tight wooden boxes, and placed in the upper story of the house. The weather is very hot and dry. The moths seem to eat the caps, and most of the honey.

[For reply to the above, see Mr. Doolittle's article on another page.—ED.]

Good Season—Prolific Queens.—J. M. Pratt, Todd's Point, Ky., on July 22, 1889, writes:

We have had the best honey-flow in five years. It is the only good honey crop in this section since 1880 and 1884; and it may be four or five years before we have another such a one. I wintered my bees without any loss for two years. I extracted 50 pounds per colony last year; but this year I have taken 150 pounds per colony, spring count, and doubled my number of colonies. Our honey season ends about July 15 for surplus honey. I have secured from one hive 179 pounds of extracted honey, and cut out 4 pounds of comb honey. It had to build only four combs this year, neither did I let it swarm. I am selling my honey at 10 cents a pound, as heretofore I never have sold any for less. We should not increase our bees faster than we build up a trade for honey. Honey, like everything else, if forced upon a market, will bring the prices down. On

page 423, Mr. Robbins says that seven frames will usually, if not always, be all that a queen can fill in 21 days. If I had a queen that would not fill more than 7 frames with brood in 21 days, by the 15th of May I would rear another, or exchange her for a better one at once; for the bees are usually in the second story by that time. I use 9-frame 3-story hives, and I wish they held 10 frames; I would have no objection to 12, as they would be less liable to blow over in storms. While speaking of queens, I have one that I bought for $3.50 three years ago, and I was told that she was two years old, and was a "two-story" queen—she was in the second story when we found her, and it was half full of brood at the time. She has never done less, but a great deal more. This year I have taken 8 or 10 frames of brood from her to rear queens from, giving empty combs in exchange. Sometime in May I divided her colony, giving each brood and empty combs. On June 7 she swarmed out, and I hived her on empty combs in a three-story hive. She is now in the second story. I shall not supersede her while she does so much, regardless of age. I have no queens for sale.

Half a Crop—Marketing the New Honey. — J. Richards & Co., Brooklyn, Wis., on July 29, 1889, says:

The white honey crop is a little better than last year, but it is not more than half a crop. Now because sugar is high, and because we have been losing money in the business for the past two years, we ought to have a good price for our one-half crop this year. Let shippers limit commission men to last year's prices, and hold fast. Wisconsin has no more than we can use at home.

Cause of Swarming.—Mr. Aaron Benedict, Bennington, O., writes:

On reading Mr. Doolittle's article about swarming (page 470), I thought that I would help him a little. What seemed to him to be rather dark, is plain to me. As a rule, the queen or mother-bee is the instigator, or cause, of bees swarming. In natural swarming, the cells are filled with larvæ, eggs and honey, the queen has nowhere to deposit her eggs, and she passes rapidly through the hive; this excites the workers, and out they come, the queen following. This is pure natural swarming. I have no doubt but Mr. Doolittle, as well as other queen-breeders, have been bothered with their nuclei swarming out, when the queen has been left several days after she commenced to lay. By examining, you will find she has laid eggs in all the cells that the bees could cover, and sometimes two or more eggs in a cell. The queen is uneasy, this excites the bees, and out they come, the queen following. I have no doubt that the case where Mr. D. says the bees left where there was honey and brood, was because there were not bees enough to cover the eggs. Now all this swarming is natural, and caused by the queen having no where to deposit eggs. There is another kind of swarming that is not natural; early in the spring a swarm comes out for lack of food, and such are called "starved-out swarms."

BELLS OF THE AGES.

BY BRET HARTE.

Bells of the past whose unforgotten music
Still fills the wide expanse,
Tingeing the sober twilight of the present
With color of romance.

I hear you call and see the sun descending
On rocks, and waves, and sand,
As down the coast the mission voices blending,
Girdle the heathen land.

Within the circle of your incantation,
No blight nor mildew falls;
Nor fierce unrest, nor lust, nor lost ambition
Passes those airy walls.

Borne on the swell of long waves, receding,
I touch the farthest past—
I see the dying glow of Spanish glory,
The sunset dream and fast!

Oh, solemn bells! whose consecrated masses
Recall the faith of old—
Oh, tinkling bells! that lulled with twilight music
The spiritual fold.

Your voices break, they falter in the darkness—
Break, falter, and are still,
And veiled, and mystic, like the host descending,
The sun sinks from the hill.

Large Crop Anticipated.—John Moller, Sr., Fremont, Nebr., on July 25, 1889, says:

This is undoubtedly the best honey season that we have had in Nebraska for many years. The bees are so eager to store honey now, as is usually the case with them in the fall of the year. I anticipate a large crop of honey during the year 1889.

Satisfied with the Results.—R. L. Tucker, Lexington, Mo., on July 24, 1889, writes:

My crop, up to date, amounts to nearly 11,000 pounds, of which 7,000 pounds is extracted, and nearly 4,000 pounds of comb honey in one-pound sections. My crop is in very fine condition, and I am having some success in disposing of it at fair prices. I believe that this will be a profitable year for bee-keepers generally, and if the report is true, that the California crop is a partial failure, we need have no uneasiness in regard to good prices, as wherever I have tried to sell, I have found a bare market, and some demand. Prospects seem to be fine for a fall yield, and if we have even our usual one, it will make our average unusually large. My crop is from 120 colonies, but it is no fair test, as I had to let 100 colonies lay idle for 10 days in the best flow, on account of not being prepared with enough surplus sections, and being unable to obtain help when needed. But I am well satisfied with the results, and I will try and not be caught again prepared to save only a fair crop. My apiary now numbers 190 colonies.

Extra Good Honey-Flow. — John Nebel & Son, High Hill, Mo., on July 1889, write:

The honey-flow has been extra good so far this season, but at the present writing the flow has ceased. The continuous rain that we have had for the past two weeks has made the weather unfavorable for secreting nectar; though what little sweet clover there is in this vicinity, seems to be yielding considerable nectar now. We are looking forward for an immense yield from Spanish-needle this fall.

Bee-Keeping in Germany.— Rev. Stephen Roese, Maiden Rock, Wis., writes:

Your pamphlet, entitled "Honey as Food and Medicine," is most excellent, and will be of great help for bee-keepers to advertise and sell their honey. I am going to have a lot with my address printed on them. The German bee-papers that you sent me I read carefully, and I find a wonderful improvement in the art of bee-keeping in Germany since my absence from there. It seems that they are trying to keep pace with the forward march in bee-culture; discarding the old-fogy way of keeping bees in straw hives; and it seems that their regulations in regard to bee-periodicals is different from that here in America. The editor, or manager, receives a salary, and the paper goes to each member of the bee-societies, free of extra cost; but the payment of a yearly fee or dues seems to pay for it. Lords and noblemen are in the ranks of bee-keepers there, and the American bee-keepers are often mentioned at their annual meetings.

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

Hastings' Perfection Feeder.—This excellent Feeder will hold a quart, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

Many Good Advertisers invite our readers to send for their descriptive Circulars, etc. It will pay to get these, and see what is for sale, by whom, at what prices, and what things are offered. Every one can learn something in this way. Please always tell advertisers *where* you saw their cards; they like to know, and we like to have them.

Prang's National Flower is the title of a beautiful pamphlet which contains two colored plates of the two most popular candidates for selection as the National Flower of America. It also has two poems, and a postal card addressed to Messrs. L. Prang & Co., Boston, Mass., with a vote to be filled up for the selection of a National flower. The pamphlet costs 25 cents, and can be obtained at this office.

Queens.—We can supply Tested Italian Queens at $1.50 each; Untested, $1.00 each, by mail, postpaid.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	...
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2 00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

Honey and Beeswax Market.

CHICAGO.

HONEY.—New honey arriving freely, and all the shipments have been promptly closed out so far. We quote: 1-lb. white clover, according to style of package and appearance, 14@16c. Receipts of extra ted increasing: demand light, at 6@8c.
BEESWAX.—25c.
Aug. 1. S. T. FISH & CO., 189 S. Water St.

NEW YORK.

HONEY.—New extracted sells as fast as it arrives. Orange blossom, 7½@7½c.; inferior Southern, 70@75 cts. per gallon. Some demand for the comb, but we have no stock yet.
July 22. F. G. STROHMEYER & CO., 122 Water St.

MILWAUKEE.

HONEY.—Old crop nearly gone, and new begins to appear, the quality being fine. We quote: New white 1-lbs., 15@16c. Extracted, white, in barrels and kegs, 7@8c.; in tin and pails, 7½@8½c.
BEESWAX.—23@28c.
July 16. A. V. BISHOP, 142 W. Water St.

KANSAS CITY.

HONEY.—Old crop all gone. New 1-lbs., 16@18c.; 2-lbs., 14c. No California comb in the market. Extracted, white, 9c.; amber, 7@8c.
July 17. HAMBLIN & BEARSS, 514 Walnut St.

CHICAGO.

HONEY.—New crop is appearing, and prices range from 15@17c. An active market is not looked for till later. Extracted, new crop, 7@8c. Very light receipts, and few sales.
BEESWAX.—25c. R. A. BURNETT.
July 11. 161 South Water St.

DETROIT.

HONEY.—New crop is coming in slowly, and sells at 14@15c. for comb. No desirable old stock left.
BEESWAX.—24@25c.
July 24. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—New white comb in 1-lb. sections sells at 16@17c. White extracted, 7@7½c.; dark, in barrels, 6c. An active demand is not expected before Sept. 1. No new extracted in the market.
BEESWAX.—None in the market.
July 20. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Extracted, bright, 6½c; dark, 5½c. The market is slow.
BEESWAX.—Scarce at 23c. for prime.
July 20. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—Market for extracted is quite active. Orange blossom, fine quality, sells readily at from 7@7½c. Off grades of Southern find quick sales at 60@70c. per gallon. No new California honey on this market. Extracted would bring from 7½@8c.—Too early to quote prices on new comb.
BEESWAX.—Dull and declining—25@25½c., good yellow.
HILDRETH BROS. & SEGELKEN,
July 22. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—Not a case of comb honey in our store—something unknown for a long time. Expecting the new crop this week. Price will be about 18c. We have some very fine new extracted white clover, which sells at 8@9c.
BEESWAX.—24@25c.
July 22. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb., and 12@15c. for fair to choice comb. Demand slow, and arrivals are fair of the new crop.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
July 22 C. F. MUTH & SON, Freeman & Central Av.

The Michigan State Fair.—The Michigan State Agricultural Society has made some important changes in the Bee and Honey department for 1889. Instead of exhibiting full colonies of bees, the premium list calls for "nucleus colony." It was the intention to have it read "1-frame nucleus," as it gives so much better satisfaction to the visitors and exhibitors; it will be adopted by many other exhibitions. If those contemplating making an exhibit of bees will bring just one frame in each nucleus, it will save much confusion with the judging. Extracted honey, which had been dropped from the list, has been replaced, and the premium raised to put it on par with comb honey. The Michigan bee-keepers try to make it pleasant for all exhibitors outside of the State, and cordially invite all to come and make an exhibit. H. D. CUTTING.

An Elegant Monthly for the

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The ILLUSTRATED HOME JOURNAL will be clubbed with the American Bee Journal and both mailed to any address in the United States and Canada, one year, for **$1.75.** The Contents of the August Number are—

Sweet Home—Making Homes Beautiful and Happy—by the Editor..... 147
Algerian Jugglers at the Paris Exposition—by Mary Brennan..... 148
On Board a Red Sea Steamer (Full page Illustration)..... 149, 174
Washington, D. C., Under the July Sun—by Walter Wellman..... 150
Illustrations: Poor Ghooly Khan—Corean Ladies at Home—Count D'Arco Valley's Yager—Evening Scene in Dupont Circle.
Fanny Crosby, the Blind Hymn Writer—by Annie Isabel Willis..... 152
A Famous Educator—Ex-President Woolsey (Illustrated)..... 154
The Latest in Jewels..... 154
The Challenge Accepted; or, How Kate Clifford Won—Concluded..... 155
Picturesque Scene in the Alpine Mountains of Switzerland (Full page Illustration)..... 157, 174
Seattle, the Metropolis of Washington..... 158
Illustration: A Street in Seattle.
The Puzzler (Illustrated); With Key to Former Issue..... 159
Our Young Folks:—"Patriotism in America"—by Geo. W. York..... 160
A Thoughtless Girl..... 161
Reposing in a Shady Retreat (Illustration) 160
Music:—"Heavenly Echoes"..... 162, 174
Chicago's Population 1,100,000 (Illustrated)..... 164
Art and Nature in Paris—The Great Exposition..... 165
Illustrations: A Striking Coachman—The Brazilian Pavilion—The Pavilion of Rivers and Forests.
Dickens' Poem—"The Children," Some Unpublished Facts About It..... 166
Uncle Sam's New Torpedo Boat (Illustrated)..... 166
The Great Pennsylvania Flood Explained (Illustrated)..... 167
A Moment of Anger; or, the Quarrel of Mr. and Mrs. Brownlow—Concluded 169
Illustrations: The Ferry—The Finding of Mrs. Brownlow.
The Bastile Centennial (Illustrated)..... 168
Fashions of the Day..... 171
Illustrations: Modified Classical Dresses—Handsome Redingote.
The Housekeeper:—"Some of my Old Cook-Books"—by Lucy Langdon .. 172
POETRY:—
A July Day..... 169
August Afternoon..... 175
Bells of the Ages—by Bret Harte..... 147
Blessed are the Poor—by Eugene Secor. 155
Charade..... 159
Daniel Periton's Ride—by S. H. Lewis.. 152
Enigma..... 159
Home is Where there's One to Love Us.. 148
In Clover—by Eben E. Rexford..... 167
The Children..... 166
To the Hills—by F. E. Palliser..... 168
What Makes the Summer?—by Marietta Holley..... 172
Whistling Boys and Girls..... 161
MISCELLANY:—
Advising his Superintendent..... 151
A Generous Physician..... 158
A Scientific Girl..... 154
A Trio..... 167
Bishop of Hamilton (Illustrated)..... 167
Curious Things of Life..... 151
Dramatic Education..... 153
Every Day Puzzles..... 159
Faith and Works..... 161
Foreign Gossip..... 173
Freaks of Fashion..... 171
General Morgan (Illustrated)..... 167
Hon. Charles L. Knapp (Illustrated)..... 168
How to Purify Water..... 148
Interesting Facts about Salt..... 151
John F. Swift, a California Lawyer..... 159
Just Like a Woman..... 172
Literary Lights..... 175
Masterly Inactivity in the Civil War.... 161
Minister from Belgium (Illustrated)..... 164
Modern Proverbs..... 167
Never Forget the Facts..... 175
One Hundred and Two..... 154
Pay of Government Chiefs..... 167
Pilgrims to the Holy Land in Charge of Father Vissani, (Illustrated)..... 170
Pungent Paragraphs..... 175
Revolutionary Joke..... 161
Russian Generals' Pay..... 153
Sleeping Rooms for Children..... 168
Some Heirlooms..... 167
Standing on Her Dignity..... 154
Thomas Corwin's Grand-Daughter..... 158
The Tyranny of Dressmakers..... 159
Stray Bits..... 173
The Retort Courteous..... 166
Three Anecdotes..... 170
Time to Stop..... 166
Unpleasant Suspensions..... 165
Virginia Railroad Accident..... 164
Vitus Behring..... 161

A Gold Watch Given Away.—To any one (lady or gentleman) who will send us fifty subscribers, we will give a nice **Gold Watch**—(instead of all other premiums and offers). It will be an Elgin Movement, Stem-Winder, Stem-Setter, and have a finely-engraved Gold-filled case (warranted to wear 15 years), and all of the most modern improvements.

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THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD.
PUBLISHED BY
THOS. G. NEWMAN & SON,
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THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Aug. 17, 1889. No. 33.

EDITORIAL BUZZINGS.

The Buffalo International Fair opens on Sept. 3, and closes on Sept. 13. Mr. O. L. Hershiser is the superintendent of the Apiarian Department, which is just added to the fair. Mr. Hershiser remarks thus, concerning the exhibits of Bees, Honey, etc.:

Not least among the new features added is the Honey and Apiary Department. The managers have made this a special feature and offered a larger amount of money in premiums than has ever been offered by any other American Fair. The rules governing this Department have been arrauged with great care, in order that all honey producers may have an equal chance to dispose of their crops either at wholesale or retail. The benefits arising from a large exhibition of bees, honey, etc., will be permanent, and the opportunity of creating a good market and a steady demand for honey will be all that can be desired.

We hope that the exhibition will be large enough to do credit to the Fair, as well as to the apiarists of New York.

A New Book is on our desk. It is entitled "The National Bee-Keepers' Directory," and contains a classified list of 2,000 bee-keepers of the United States and Canada, (including adout 200 supply dealers), with essays and hints regarding the successful management of the apiary. It is "compiled by Henry Alley, Wenham, Mass." It contains 140 pages, one-half of which are devoted to names and addresses of bee-keepers, and the other half to the practical hints mentioned above, including Mr. Alley's "method for rearing queens in full colonies, while a fertile queen has possession of the combs." Price $1.00 in paper covers, and $1.25 bound in cloth.

The Annual Basket Picnic of the Cortland Union Bee-Keepers' Association will be held at the Floral Trout Park, in Cortland, N. Y., on Aug. 20, 1889.

The S. W. Rich Lawsuit, we notice by a news-item in the New York *Sun* of July 30, has again been decided, this time in the Circuit Court, which, it is said, has affirmed the decision of the County Court, which gave banker Olmstead damages of 6 cents, with costs.

He sued for $1,200.00 damages for injuries inflicted by the bees upon his person and property, but the jury (from which every person having bees was excluded) gave him but *six cents* to cover wounded feelings and damaged property ! !

If the Circuit Court has confirmed the decision of the lower Court, as is alleged in the *Sun*, that just gives us the opportunity, so much desired, to appeal to the Supreme Court of New York, and there have a decision to place by the side of the one from the Supreme Court of Arkansas. This will give us some grand precedents, for we are making history now, and creating "decisions" for posterity.

At the former trial Judge Boardman ruled against the bees every time ; and, in charging the jury, compared the bees to a "pigsty" and a "slaughter-house." This was the first case, with one exception, ever tried in the State, and the Judge having no law or precedent to go by, ruled just as *he* thought proper.

Now if the case goes to the Supreme Court, (and we are strongly in favor of its going there), no Judge will have the least excuse for such outrageous comparisons—for the law will have provided "precedents."

It remains for bee-keepers to say just what shall become of the case. It takes money to get "decisions of law." At least 500 members of the Union must be had, if we carry this case any further. Reader, what is your decision ?

The Union ought to have ten thousand members. There are many things it could do, if it had that many. It could *compel* Metropolitan Newspapers to *tell the truth* about honey, and command respect everywhere ! If *new officers* would "enthuse" apiarists—just a *hint* will cause a vacancy in the office of General Manager, for we know that he would gladly welcome a more energetic successor.

Honey from Alsike.—Mr. J. W. Wilcox, Scales Mound, Ills., states his experience in scattering the Alsike leaflets, and it is worth the consideration of others. He said :

Leaflet No. 2, purchased of you in the spring of 1888, was the means of sowing 10 bushels of Alsike clover seed, and the sowing of more last spring, in this vicinity. I am well paid for my investment of 50 cents, in the way of the very best white comb-honey.

Please mention the fact, that my brother bee-keepers may "go and do likewise;" for it has paid me *very well*. Result: 21 colonies spring count, and 42 colonies now, with 2,500 pounds of comb-honey, and 200 pounds of extracted honey.

Without the Alsike, I could not have done so well, for the white clover was badly damaged during the past dry seasons.

The Tri-State Fair (Ohio, Michigan and Indiana) will be held at Toledo Ohio, September 9 to 13, 1889. Competition is open to the World. As usual, Dr. A. B. Mason is superintendent of the Department of Bees and Honey, and Preserves, Pickles, etc. In class 56, "Bees and Honey," entries close Sept. 9, and colonies must be exhibited in such shape as to be seen on at least two sides. Here is a list of the premiums :

Most attractive display of Comb Honey..	$8 00	$5 00
Most attractive display of Ext'd Honey..	8 00	5 00
Display of Comb Honey, not less than 10 pounds, in best shape for shipping and retailing	3 00	2 00
Display of Extracted Honey, not less than 10 lbs., in best shape for retailing	3 00	2 00
Colony Italian Bees	4 00	2 00
Display of Bees	4 00	2 00
Most attractive display of Beeswax	2 00	1 00
Display of queens, put up in such shape as to be readily seen by visitors	5 00	3 00

In Class 57, "Apiarian Supplies," the premiums are as follows :

Comb foundation machine	$4 00	$2 00
Comb foundation for brood chamber made on grounds	4 00	2 00
Honey extractor	2 00	1 00
Machine for making holes for wiring	2 00	1 00
Largest Display of honey-bearing plants properly named and labeled	4 00	2 00
Best display of Apiarian Supplies		Diploma.
Honey-vinegar, not less than one gallon, to be exhibited in glass	2 00	1 00

The Doolittle Book on Scientific Queen-Rearing, is thus mentioned by Mr. G. D. Howe, North Hadley, Mass. :

I thought as I was an amateur that it would have no particular charm for me, but suffice it to say that after picking it up I didn't drop it till nearly through it, and then only to eat supper. The natural, story-telling style, in narrating the discoveries the author made, particularly with reference to the building of artificial queen-cups and the fertilizing of queens from the upper story of the hive, is what took my attention. It must prove a great addition to bee-lore, and anyone at all interested in the subject will spend his time very profitably in reading it.

Prepare the Bees for Winter.—Under this heading, the *Apiculturist* for August gives this advice :

This is the month to get your bees in condition for winter. All colonies that do not have good queens, and all those having old queens, should be requeened. A good prolific queen introduced at most any time during this month will fill the hive with bees in four weeks. As a rule, the queens cease laying Sept. 20, and all the young bees are hatched out by Oct. 10.

New Yorker's Latest Fad.—The latest fad in New York is to take a ride in a double-decked Fifth Avenue Stage Coach—an amusement open to all classes of people. FRANK LESLIE'S ILLUSTRATED NEWSPAPER last week contained a very spirited picture of one of these stages. That excellent number also contained negro sketches by Kemble, a supplement entirely devoted to Detroit, Vanderbilt's famous trotting team, and many other good things.

We have received an excellent German pamphlet on bee-culture, written by the Rev. C. Weygand, pastor in Flach, Germany. It is well-written, brief and to the point.

Comb-Honey Slanders.—It is no more the duty of the editors than it is of other bee-keepers, to refute the slanders of newspaper correspondents, and others, about comb honey. All are alike interested in circulating the truth about our pursuit. Mr. A. I. Root, in the last *Gleanings*, makes some very excellent and pratical suggestions about preventing the publication of the slanders on comb honey, and averting their baneful influence by immediate action being taken, in the locality of the transgressor, by the interested bee-keepers themselves. Here is what he says :

If there is anything that the veracious scribes like to talk about in the press, and roll under their tongues as a precious morsel, and finally spit out upon the public, it is the subject of adulteration. They seem to have gone wild on the subject. They know that people like to be told that they are being humbugged ; and they know that the story of "Yankee ingenuity" will cause the gullible public to hold up their hands, "Did you ever!" and as long as there is a demand for it, so long the same old story will be rehashed, unless there is a stop put to it.

"Manufactured comb honey," "artificial combs deftly filled and capped over by means of appropriate machinery"—oh dear! how stale it sounds ! If the reporters could only change their tune a little it would be gratifying ; but "appropriate machinery" has to be stuck in every time. Well, within the last few weeks, or at least since the Philadelphia *Record* began republishing the comb-honey story, the whole press all over the land has been reiterating it in long and short squibs. Clipping after clipping has been sent in until we feel discouraged. We have published them and refuted them publicly, and have sent marked articles to the editors, calling upon them for retraction. We have written private letters, asking them in all fairness to be kind enough to make some amends. Nor has Bro. Newman of the AMERICAN BEE JOURNAL been less vigilant.

We have about come to the conclusion that the bee-papers need assistance in helping to cry down the evil. Jones sees a false statement about the comb-honey business, in one of the columns of his local paper. He cuts it out, marking the date and issue of the paper and sends the same on to us, or to Bro. Newman, of the AMERICAN BEE JOURNAL. Well, so many clippings like this have come in that it would almost fill one issue to make any thing like an appropriate denial for each one. Quite recently some four or five correspondents, instead of sending the marked article to us for refutation, have themselves called upon the editor, showing the absurdity of the statement in a recent issue of his paper. In two or three instances they have written out a refutation themselves, and this refutation appears in the very next issue of the paper, so that the false impression is *corrected right where the mischief is done*, and not in the columns of a bee-paper whose readers know perfectly well the untruth.

The following is a spicily written article from the pen of one of our subscribers, Mr. Julius Gerard, of Mariposa, Texas ; and as it illustrates the point we are getting at, we reproduce it here entire :

A PROFESSOR MISTAKEN.

Glucose as Artificial Honey. A Practical Bee-Keeper's Knowledge of the Facts.

EDITOR BRACKETT NEWS :—I suppose when you want to get the real facts about anything you refer to your Encyclopedia Britannica ; for instance, if you wish to know how far it is from Brackett to the sun, you refer to the Encyclopedia ; and whatever the given number of miles may be, you or any one else will accept it as a fact. I am sorry to say, however, that my confidence in the American Encyclopedia has been lowered 100 per cent., because I see at least one instance in which hearsay is given out as true science.

Mr. Chas. Morris, of the Philadelphia Academy of Science, writes concerning glucose, in Vol. III of American Suplement, page 537, in the left-hand column, 21st line from the top, as follows :

"Glucose is used chiefly in the manufacture of table syrups and confectionery, in the brewing of ale and beer, and to some extent as food for bees and in the making of artificial honey. No reliable statistics can be had as to the quantity used in brewing, since brewers seek to conceal the fact of its employment. When it is fed to the bees, the honey yielded by the bees is almost pure glucose. In artificial-honey making, the comb is made of paraffine, and filled with pure glucose by machinery. For whiteness and beauty it rivals the best white-clover honey, and it can be sold for less than half the price. Its one defect is, that it is not honey."

Now, sir, this falsehood is given by a professor of science, and published as a fact in the Encyclopedia Britannica—a work to which thousands of people refer as authority.

If the author of the article on glucose will take the trouble to come out to the Mariposa apiary, I will convince him that his education as a bee-keeper has been sadly neglected, and that what he wrote about artificial honey being made of glucose and then put in artificial comb by machinery, is false ; and if he has taken no more pains in writing the other parts of his work than he did in this, I would not give a nickel for all the volumes of the Encyclopedia Britannica.

Mr. A. I. Root, of Medina, Ohio, offers a reward of $1,000 to any one who will show or tell him where artificial honey is made ; this offer was made because so many false reports have been cast abroad about honey. Mr. Root has not yet found anybody who claimed the reward.

If Prof. Morris, the glucose gent, tells us that the distance to a certain star is just 400,000 and ½ of a mile, I for one am willing to swallow it, even to a fraction of a mile. But when he wants to tell me or any other progressive bee-keeper any thing connected with our industry, he should be a little more careful, as we never go by hearsay, but by facts. That man is doing a hard-working class of men a great injury. I can assure you, dear sir, that there is no artificial comb honey made by machinery, and that there was never any made.

Mariposa Apiary. JULIUS GERARD.

Another one of our subscribers, also secretary of the Ohio State Bee-Keepers' Association, Miss Dema Bennett, of Bedford, O., who, after having read the usual yarn about manufactured comb honey "deftly filled by appropriate machinery," in a large Cleveland daily, called upon the city editor in person, proving the falsity and absurdity of the statement respecting manufactured comb honey, which appeared in a recent issue of his paper. After telling him that tons and tons of honey are produced honestly, she referred him to us. As a result of this visit he wrote us a letter asking for facts in regard to the honey business. We immediately sent him a card, offering a thousand dollars for a sample of manufactured comb honey, "deftly filled by means of appropriate machinery." We also sent him a long letter, detailing the importance of the honey industry in the United States, telling him where he could find out just how bees "make honey," by sending a reporter. We referred him to Dr. A. B. Mason, Auburndale, O., and to H. R. Boardman, of East Townsend, O., and we requested, as a special favor to bee-keepers, that he send a reporter to either one of these gentlemen, and report what he sees, in his own paper.

A personal letter written to the editor who has damaged the bee-keeping industry by one of the falsehoods, or, better still, a personal visit itself, will

secure the attention that a prompt denial from a bee-papers might fail to do. In one case Mr. Gerard wrote an article to the Brickett *News*. In the other case a lady bee-keeper (and what editor would not give one of the opposite sex a fair hearing?) called upon the city editor and enlisted his interest so that he even wrote to A. I. Root for information.

The point is, that *refutation or denial should appear in the paper in which the falsehood has been published*; in other words, those in whose minds the false impression has been created should have a speedy denial. These large papers will rarely deign to publish any thing from a small paper, but they will take something first-handed, as a general thing, providing the right influences are brought to bear. Now, then, we suggest that, instead of sending so many of these clippings to us, *you sit down yourself* and write to the editor of the paper in whose columns the false statement appeared. We will furnish free all the $1,000 reward cards you can use, and other matter you may call for. The more bee-keepers who will do this, the more effect it will have.

Be sure to write in a gentlemanly manner. Do not call them a "pack of fools" or a "set of liars;" but write in such a way that they will respect the writer. Of course we shall not cease pecking away at the falsehood, as we have done in the past, but we solicit the most hearty co-operation of our subscribers. Do not forget that when the item appears in your local paper, a *prompt denial from yourself*, especially if you are a man of influence, and one whose word even the editor has no reason to doubt, will have more effect upon the editor than the denial from a bee-paper perhaps several hundred miles away. Do not leave any local editor unvisited, who dares to slander our industry by publishing any thing about "artificial combs deftly filled and capped over by appropriate machinery."

These *earnest* words of Bro. Root are excellent suggestions, and we endorse them most fully. We hope our readers will be on the alert, and strike the nail on the head every time. The only way to kill this venomous, hydra-headed snake of comb-honey slanders, which extends its loathsome presence all over the country, is for every bee-keeper to consider himself a committee of one to chop off a head every time it appears in sight. Then send a marked copy of the local paper when the amputation is chronicled, to the bee-papers, which will cheerfully applaud it.

Bee and Honey Exhibitions at the Expositions.

The following is a letter from Mr. S. B. Pratt, father of E. L. Pratt, editor of the *Queen-Breeders' Journal*, published at Marlboro, Mass. It will be read with interest because it is the impartial testimony of one who is traveling abroad for the benefit of his health, and who sees things from an American stand-point:

I spent one day in the great English Agricultural Exposition at Windsor, with my family. I gave much of the day to the Bee-Department. It was very fine. A large building was given up wholly to an exhibition of every kind of bee-appliances. Large prizes were given for hives, smokers, honey displays, etc. There were some very fine models of large bee-farms. At a little distance there was a large tent of mosquito-netting, within which an expert operator every two hours gave a lecture to a large crowd, handling the bees and instructing as to how to do the whole business. He was very bright and well posted.

The Baroness Burdette-Coutts took great interest in the bee-department, and the Queen herself visited the bees when the great awards were made. The boxes of honey were very fine. Some very curious work in the way of names and dates were displayed in comb filled with honey. Much credit was given to America for new suggestions. Flat sections, made in Wisconsin, have been introduced by many English apiculturists. Every leading display contained these American sections, although most of the honey shown had been stored in paste-board boxes of the same size, with glass front and back, and trimmed around the edges with fancy paper. One exhibitor had sections made wholly of glass, held in place by hoops of fine wire.

All the honey shown seemed to be of very superior quality, every section being filled even to the corners. The honey from some localities was golden colored, from others very white, while some was very dark colored.

Many styles of honey extractors were shown, and immense displays of extracted and granulated honey, put up most beautifully in cut-glass jars.

The English have a great many devices for feeding bees, some of them very small, while other feeders covered the whole size of the bee-hive. Many Englishmen still cling to the old-fashioned, conical straw-hives. The lecturer declared that these straw-skeps were the greatest obstacle to bee-progress. Most of his exhibitions were given with straw-hives. A great many bee-keepers in England still destroy the bees by sulphur, to get at the honey.

The Carniolan queens are daily becoming more popular in England. The black bees had the whole field to themselves. The Italians had a hard fight to gain recognition, but the Austrian bees are winning great favor. The only criticism I heard on them was by one man who declared that the capping to the cells was too thin for transportation.

Australia has a large building devoted to bee-products. One large show-case was filled with honey in the comb, and in glass and earthenware. This honey had been brought such an immense distance, that it arrived in very poor condition. It seemed to be made mostly from the bloom of the encalyptus tree, having a very peculiar and unattractive taste.

The Paris Exhibition.

We have given two days to the great Paris Exposition. I found there a small display of bees from Luxembourg. These are all kept in hives about the standard American size, and covering every hive was a wooden screen, looking for all the world like green blinds of heavy slats.

The English display of bee-products here was very good. America, also, had some large show-cases filled with the most recent inventions; but no one seemed to be in direct charge, and it looked as though these inventions had been pulled about and left in more or less disorderly confusion. The moral to be drawn from these distant contributions in both the great national exhibitions would indicate that unless these contributons are under the constant watch and guard of some friend, who will give his whole attention to their proper display, they had better not be sent.

America has more bee-papers than any other nation, and a copy of each publication was on file here, including the AMERICAN BEE JOURNAL.

Many other countries sent bee and honey displays, but the French display outranked the combined results of all other nations, and was more extensive and grand than we expected to see. Tons of honey, in the most attractive forms, were displayed. One straw super that we noticed, was filled with over 150 pounds of dark-colored honey.

Many individual exhibitors were in attendance, and everything was done to charm and fascinate the visitors.

S. B. PRATT.

The British Bee Journal has been reduced in price to one-penny, or about one-dollar a year. It is published weekly, and is well edited and printed. The extra postage to America is 50 cents. It will be clubbed with the AMERICAN BEE JOURNAL in the United States and Canada for $2.40.

QUERIES and REPLIES.

Size of Cells in the Sheets of Comb Foundation.

Written for the American Bee Journal

Query 648.—Ought not comb foundation sheets to have a top and bottom, with smaller cells at the top, and grow larger nearer the bottom?—Moline.

No.—M. MAHIN.

No.—A. B. MASON.

No.—J. P. H. BROWN.

Why?—C. C. MILLER.

I think not.—EUGENE SECOR.

I see no reason for it. Why?—A. J. COOK.

I cannot see what would be the advantage.—P. L. VIALLON.

I would prefer the cells all worker.—MRS. L. HARRISON.

No. No more than a cart should have five wheels.—J. M. HAMBAUGH.

See answer to querry 647. My experience says, always put brood-foundation on wires.—R. L. TAYLOR.

I know of no particular necessity for it; or, having the cells of different sizes!—WILL M. BARNUM.

Why not reverse the thing, and make the larger cells at the top, where they belong? The foundation as made at present suits me.—H. D. CUTTING.

No! if you are afraid of sagging, use plenty of wires, or use foundation six or eight months old, as it sags less than fresh-made.—DADANT & SON.

I have never found any such need. It would be impractical to make such foundation, except on a press.—JAMES HEDDON.

I do not see why they should. Wiring frames does away with stretching, and is but little trouble or expense, compared with an attempt to graduate the size of cells in the rolling mill.—J. E. POND.

No! No! Buy good foundation. It is not a new thing. Most bee-keepers know where to get good foundation. The trouble with foundation arises from two facts—it is either not good, or it is badly used.—J. M. SHUCK.

I can see no need of such an arrangement. No one can calculate how much a sheet of foundation, under all circumstances, will or will not stretch. With a little experience, it is not an insurmountable difficulty to get good, straight combs from good sheets of foundation without wiring.—G. W. DEMAREE.

No. I have practiced, however, making foundation with a thick and a thin edge; that is, running it through the rolls with one side pressed thinner, using the thick in the upper part of the frame, and I would that it stretched very little.—C. H. DIBBERN.

No. The smaller cells would be of no use to the bees, no matter if they were stretched twice their width the other way. If you use foundation at all, use it in connection with wires running through it, unless you can find a kind which will not sag or stretch.—G. M. DOOLITTLE.

I think not. Comb foundation as now made by leading manufacturers, is entirely satisfactory. I am strongly opposed to wiring foundation in brood-frames, but I do not approve of the above plan to prevent the evils of sagging. It will be found that a brood-frame about 7 inches deep, will obviate all difficulties.—G. L. TINKER.

Certainly not. It would land us all in confusion to attempt any such thing.—THE EDITOR.

Is it Necessary to Shade Hives in the Apiary?

Written for the American Bee Journal

Query 649.—1. Is a portico (or its equivalent) to shade the entrance of a hive, *essential?* 2. If not essential, is it *desirable?*—WIS.

1. No. 2. No.—M. MAHIN.

1. No. 2. No.—R. L. TAYLOR.

1. No. 2. No.—EUGENE SECOR.

1. No. 2. I hardly think so.—C. C. MILLER.

1. It is not essential. 2. It is undesirable.—J. M. SHUCK.

It is neither essential nor desirable.—P. L. VIALLON.

I deem it both essential and desirable.—WILL M. BARNUM.

1. No. 2. I think not. See my "Bee-Keepers' Guide."—A. J. COOK.

It is not essential nor desirable.—J. P. H. BROWN.

I use no such thing, nor do I consider it essential.—G. M. DOOLITTLE.

No; neither is it desirable.—J. M. HAMBAUGH.

A *shade* is desirable, but we do not like the portico.—DADANT & SON.

I do not know that it is essential, but our hives all have porticos. I would not like to do without them.—MRS. L. HARRISON.

No. If you shade at all, use a shade-board on the top of the hive.—H. D. CUTTING.

It is not essential, and I doubt very much if it is even desirable.—C. H. DIBBERN.

1. No. The entrance to the hive should not be shaded, except in the hottest part of the day in summer. 2. No.—A. B. MASON.

1. No. 2. It is desirable with me, as protection to the queen and drone-traps; but it also gives shade to the entrance, and comfort to the bees.—G. L. TINKER.

1. No, not in my apiary. 2. No. It is a nuisance. A hive, to be susceptible of handy manipulation, should have a loose bottom-board, and should be made so that the sectional parts will duplicate each other on the square-joint principle. See my answer to query No. 646.—G. W. DEMAREE.

After much experience with porticos on hives, I found them worse than useless, and discarded them. They were never made to shade the entrance and keep the bees cool; they have just the reverse effect. They were designed for protection against wind in prairie countries.—JAMES HEDDON.

It is not; and for myself I do not deem it desirable. Its greatest use is for spiders to spin their webs, and for millers to lay their eggs. Shade can easily be arranged when needed or required, much better than can be done with a portico.—J. E. POND.

Upon weighing all the advantages and disadvantages on the balance, we conclude that it is neither essential nor desirable—though porticos are quite generally seen in small apiaries.—THE EDITOR.

Convention Notices.

☞ The Northwestern Bee-Keepers' Society will hold its annual convention at the Commercial Hotel, corner of Lake and Dearborn Sts., in Chicago, Ills., on Wednesday, Thursday and Friday, Oct. 16, 17 and 18, 1889. Arrangements have been made with the Hotel for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day for each person. This date occurs during the Exposition, when excursion rates on the railroads will be very low. There has been a fair crop of honey in the West, and an old-time crowd may be expected at this revival of the Northwestern from its "hibernation."
W. Z. HUTCHINSON, *Sec.*

☞ The fifth semi-annual meeting of the Susquehanna Bee-Keepers' Association will be held at New Milford, Pa., on Saturday, Sept. 14, 1889, at 10 a.m. There will be essays on different subjects, and also a question-box. Bring your wives along, and please invite your neighbors who are interested in bee-keeping, to come with you. If you have anything new, or that would be of interest in any way, of implements or fixtures, bring them, so that all may see them.
H. M. SEELEY, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary,—R. F. HOLTERMANN, Sec. Brantford, Ont., Canada.

☞ The Iowa State Bee-Keepers' Association will meet at the State Fair Grounds during the State Fair week, commencing on Sept. 3, at DesMoines. The meetings will be held in our large Tent, and an invitation is given to all bee-keepers to meet with us, bringing their families and friends, and help to make our meeting one of interest to all bee-keepers.
MRS. O. F. JACKSON, PRES.

☞ The Northern Illinois Bee-Keepers' Association will hold its next meeting on Aug. 20, 1889, at R. Marsh's, in Guilford Township, 4 miles northeast of Rockford, Ills.
D. A. FULLER, *Sec.*

Subscribers who do not receive this paper promptly, will please notify us at once.

CORRESPONDENCE.

LESSONS.

Some Important Facts from the Experiences of the year 1888.

Written for the American Bee Journal

BY FRED KANZLER.

Our excellent AMERICAN BEE JOURNAL has brought several valuable lessons, which the poor season of 1888 taught us, viz: That if comb honey could be "manufactured," it would have been done very extensively, but we saw not a single pound in our markets, therefore it is an impossibility; and Prof. Wiley did not tell us a "pleasantry," but a simple *lie*; that mixed farming is more safe than specialties; that we start with a clean market for the next year, and can sell our honey on hand for a good price, etc. But there may be a dozen or more lessons yet to learn, and I will name a few more:

1. The year 1888 teaches us that not the number of colonies can be blamed for the poor season.

When over the whole country (a few places excepted) the honey-flow failed, then has a man with a few colonies as much surplus honey as the man with many colonies, *i. e.*, *none*; therefore the number of colonies has nothing to do with the poor crop, but the poor season is the cause.

2. Our idea of "overstocking" must be modified.

If I had, in 1888, 20 colonies, and my neighbor 200, and I would say; "Neighbor, you overstocked our country," what would be the answer? He would say, "Friend, if I had 20 or less colonies instead of 200, you would not have an ounce more honey than you now have;" and if overstocking means a small crop of honey, then the whole country is overstocked. I, for my part, think that if I keep more colonies than I can profitably handle, then my yard is overstocked, and I will blame neither my neighbor nor his many colonies.

3. The year 1888 occasioned good feeling among the bee-keepers.

Some time ago a few big bee-keepers living on a good honey-belt said to the small apiculturists, "You had better keep no bees at all, but buy your honey of us!" What would those great men say now, if the small bee-keepers and the public came to buy honey, and they had none left over from last year? Would they (the big bee-keepers, with hundreds of colonies) not be ashamed of their own folly, self-conceit and self-interest?

As misfortune cuts." Bi and brings even foes together; de near nothing more of the foregoing talk, but find a more friendly feeling among all the bee-keepers, and I hope that this good feeling will grow from year to year, so as to embrace all bee-keepers in the land, making them one brotherhood.

It would also create a good feeling among bee-keepers and correspondents, if the latter would drop all personalities, and take more into consideration the difference of localities, climates and degrees of latitude.

Between bee-keepers there should not be any professional envy or jealousy, as we sometimes find among other tradesmen; for, if I have no surplus honey, my neighbor has none; and if he has a good crop of honey, I have also much surplus honey, all other things being equal.

Santa Claus, Ind.

BEE-ITEMS.

The Distance that Bees Fly for Honey.

Written for the American Rural Home

BY G. M. DOOLITTLE.

A correspondent writes that he has seen the statement that bees do not fly more than one and one-half miles from their hives in any given direction, and desires to know if this is a fact. I know that there are a few who claim what our correspondent writes, but the majority of bee-keepers believe that bees go double that distance for honey; while some have traced their bees so that they were positive that they were at work on flowers seven miles from where the apiary was situated.

The most of my experience along this line was obtained when the first Italian bees came to this country, as they were then located three miles from me, in a straight line. The next spring after they were thus brought here, I was watching the bees at work on apple blossoms, and soon saw an Italian bee at work in my orchard, when there could not have been any of this variety of bees nearer than the three miles spoken of above. Upon examining more closely, I found that on an average, one bee in five were Italians, and this with apple blossoms in profusion everywhere.

Again, in haying time, as I was cutting a field of clover one mile from home, or four miles from the same Italians, I saw bees at work on the clover. Having heard so much about Italian bees working on red clover, I got off the machine, and, to my surprise, counted five Italians to two blacks, with fields red with clover everywhere.

Once more: One year still later, there was not a piece of buckwheat in sight of my apiary, and the nearest of any amount was four and one-half miles in a southerly direction, where there was from 20 to 30 acres, while about six miles away, there was nearly 100 acres. I sold 900 pounds of buckwheat honey that year, and the bees wintered on at least 2,500 pounds of buckwheat honey.

From the above I became satisfied that bees went from five to seven miles for honey, although I believe that they will work to more advantage when they do not have to go more than from two to three miles away.

Bees with Jagged Wings.

Another correspondent writes about seeing many bees with jagged wings during the month of June, and wishes to know what caused it. Some suppose that it is caused by the bees flying so far during basswood and other bloom, which tends to lead the bees far from home for honey; but I think that this is a mistake, for basswood does not bloom in this locality till about the middle of July, while, as our correspondent states "we see the tattered-winged bees in June more plentifully than any other time during the year," at which season the white clover is in bloom.

White clover, with us, grows mostly in the meadows, and in order to get it the bees must fly down in the herd's-grass, and so by constantly hitting the wings against the grass they become worn, as our correspondent has observed. By the time basswood is over, we see but few of these bees with jagged wings, as the ones which worked on clover have mostly died by this time.

Light-Colored Bees.

Another writes, wishing to know if the light-colored Italian bees are as good honey-gatherers as the dark ones, having heard that the light-colored bees were lazy.

I never had any dark Italian bees, but have plenty of blacks and hybrids, and with me the nearer pure the bees are, the better honey-gatherers they make. To illustrate:

Several years ago, when the basswood was all gone, I did not have a single section filled with honey. After a week or so, the seed crop of red clover came into bloom, and my Italians and hybrids commenced to work on it; but the black bees did nothing but consume their own stores, and carry what little honey they had in the boxes, down into the hive. The best and lightest Italians filled their hives, and stored from 45 to 60 pounds in sections; and the hybrids stored just in proportion to the amount of Italian "blood" there was in them.

Those that were one-fourth Italian, got about enough to winter; but all the blacks I had to feed, taking frames of honey from the Italian colonies to do that feeding with.

Right here is where many make a mistake, when they claim that hybrid bees will store more honey than the Italians, as it sometimes happens that the Italians under poor management fail to put as much honey in sections as do the hybrids. Looking at the sections, it would appear as if the hybrids were the best, but when we come to prepare the bees for winter, then we find that while we have to feed the hybrids to fix them so they will not starve before spring, every hive having the light-colored Italians in them, has an abundance of stores, and often enough to spare, to put the hybrids in good condition as to stores also.

Some think that it is best to have the brood-chambers of the hives nearly or quite empty in the fall, as the hybrid bees generally have them, so that they can sell the honey and feed the bees for winter, claiming that bees will winter better on sugar syrup than on honey. I know that bees will winter well on sugar syrup, but so far my observation says that they will do equally as well on the honey.

It is a job to feed a whole apiary in the fall of the year, when the bees have stopped getting honey, and one that I do not hanker after, after having tried it once or twice from necessity. My belief is, that the Italian bees are the best bees in the world, taking all things into consideration.

Borodino, N. Y.

THE UNION.

How the Arkadelphia Argument Prevents Bee-Lawsuits.

Written for the American Bee Journal

BY JOHN M'KEON.

DEAR EDITOR:—As I have a guilty conscience, and think it only right that I confess that I have wronged you, and without doubt robbed you of some laurels, because, as I understand, there has been some under-handed plotting in regard to making us remove the bees out of the corporate limits, although our bees have never troubled any person or thing yet; and they are not less than 40 feet from the sidewalk, for they are hemmed in by young trees, and only five houses on the whole street, and only on one side at that, the other side being farming land.

On June 30, three small children were sent down this back street, and for the purpose of getting those innocents stung, as I could see no other purpose, for [illegible] ones were hemmed on both sides by a swarm, but they were not harmed. A lawyer came down, and tried to quarrel, and endeavored to frighten the people, saying that it was dangerous to pass. Teams were driven by, and people that came from church passed without harm. (Now I don't think that it is at all necessary that because a man is a lawyer, he must be a scamp.)

As I kept hearing these things, I was exceedingly anxious to hear of Z. A. Clark's case, and when I received the BEE JOURNAL, of June 29, I was happy. I showed it to very many, and said, "Read that, and compare it with the rulings of that old fossil of Ithaca"—I meant Judge Boardman—in the rich bee-case, as they were acquainted with his rulings, likening an apiary to a pig-sty and slaughter-house. A very worthy young disciple of Blackstone, after reading Judge Williams' argument, declared that it was a most powerful defense.

Now, Mr. Newman, if you feel hurt at losing a chance to be defendant in a bee-suit, then I humbly ask your pardon; for the argument of Judge Williams has "cooked" those fellows. But you may say, "Mc Keon, I do not know you as a member of the Union." Well, I am one by proxy, for my wife is. In 1882 she said that she would buy two colonies if I would take care of them. A few years after, I said to her that if she kept bees she must join the Bee-keepers' Union. She replied, "John, you don't think that we will ever have any trouble, do you?" I said, "No; yet we can't always tell, and it is better to prepare for war in time of peace."

Buckwheat is just beginning to bloom, that is, the earliest sown, and if the weather is only favorable, we shall get a good crop of honey, as there is a large acreage of it in range of our bee-yard,—perhaps not less than 200 acres, and maybe more. The farmers tell me that there is more sown than ever.

Dryden, N. Y.

[No, indeed; the Manager of the Union is in no wise "hurt" over such a matter. He does not covet lawsuits and all their consequent annoyances. He was drawn into the position without any thought of what it entailed, or he would not have dared to have accepted the office. It has taken *months* of labor, and caused many a sleepless vigil. And all he gets for it is the "glory" or "laurels" you mention—but he is quite willing, yes anxious to *divide* them, in cases similar to the above.—ED.]

BEE-TALK.

Hints about Bee-Keepers' Conventions, etc.

Written for Gleanings in Bee-Culture

BY DR. A. B. MASON.

It may not be uninteresting to learn that, in this locality, or within the bounds of our Tri-County Agricultural Society, comprising the counties of Lenawee and Monroe, Michigan, and Lucas, Ohio, the bee-keepers are awake to the importance of improving every opportunity to educate the people in regard to our important and growing industry.

A year ago last winter the society held a three-days' meeting at Monroe, Mich. It was just "chock-full" of enthusiasm, and the bee-keepers did their full share. It was so arranged as to have our specialty discussed in the evening, when there would be a full attendance of people from the city, whom it is quite desirable to disabuse of ther false belief in regard to the adulteration of our product, and correct the false impressions made by "Wiley" lies and newspaper squibs—the product of the fertile imaginations of reporters.

The next week after the above-mentioned meeting, a farmers' institute, under the auspices of the Ohio State Board of Agriculture, was held in the county, ten miles from Toledo, at which our friend T. B. Terry was one of the lecturers, and our specialty was again brought to the notice of the farmers and others by the reading of a paper by myself, and the subject received its share of attention. And again at a like institute held in another part of the county, on the last day of last year and the first day of this, the subject was again presented by an essay that gave something of the natural history of bees, and the benefit they are to the farmer and to the agriculturist.

Last winter at Adrian, Mich., was held the anniversary of the Lenawee County Horticultural Society, and one of the principal addresses, through the efforts one of your patrons, Mr. D. G. Edmiston, of that place, was on the relation of bee-culture to horticulture. It was well received. Again in January last was held at Adrian the meeting of the Lenawee County and the Tri-County Agricultural Societies; and on the programme for one of the evening sessions, half of the time was given to an essay on bee-keeping, etc., by H. D. Cutting, of Clinton, Mich., and to one by your humble servant. The subjects of both papers were discussed by such bee-keepers as D. G. Edmiston, Mr. Ellis, A. M. Gander, and others; and the discussion showed

that a lively interest was taken in the subject. I never was at a gathering of any kind where so many sample copies of bee-peridiocals were asked for by interested parties.

Mr. Newman had kindly sent some copies of the AMERICAN BEE JOURNAL for distribution, and I had some extra numbers of *Gleanings* to distribute also, and they were given to interested parties, and I doubt not you will hear from some of them. I had some copies of "Dot Happy Bee-Man" song with me, and at the close of the discussion of the bee-essays, the glee-club sang it, to the evident satisfaction of the hundreds present.

At the close of the institute, at the solicitation of our friend H. D. Cutting, we (that's my better half and I) went home with him, 22 miles by rail, and had a good three-days' visit with him and his family.

Of course I had to take a good peep at his bees. Till the last two or three winters his bees have been wintered out-doors, packed on their summer stands, but he is now a thorough convert to the benefits of cellar-wintering. His cellar is under the house, and is used as a family cellar for vegetables, etc., and is 16x24, and seven feet high. He has made a kind of rack along one side and end, so as to hold three tiers of hives, which are set with their entrances toward and with a few inches of the wall, each one being easily removable without disturbing any of the others.

The frames are covered with enamel cloth, and the bottom-board is left on. Some of them were placed in winter quarters October 20, and the last on Nov. 20; and I am safe in saying there were not two quarts of dead bees on the cellar-bottom, from about 40 colonies, and none had been taken up. A small window at one end admits light at all times, sufficient so that no artificial light is needed to see to get things from the cellar, and but little light reaches the bees. He prefers a temperature of from 38° to 40°. If with the temperature of my cellar, 50°, I were to admit light, I should have to carry out mostly dead bees in the spring.

On the evening of the second day of the institute I had the pleasure of going home with, and being entertained by, Mr. E. W. Ellis, president of the Adrian Scientific Society. He lives five miles in the country, and, metaphorically, is full of bugs, beetles, reptiles, etc. Being rather timid, and having no special liking for such animals, you can perhaps imagine my feelings on being ushered into a room about twelve feet square, more or less, "zhust zhammed crammed full of dose pets vot vorks all der day, und nefer schleep nights, more'n ten tousand hundret, I bets." But then I soon found they were all dead. Mr. Ellis is a very enthusiastic entomologist, and he has a large library of scientific books, and seemed to know all that was in them. Of course, he keeps a few colonies of bees, and tries all sorts of experiments with them.

We were entertained at Adrian by Mr. Edmiston and family; and of course he keeps bees, or how else could I possibly have stayed over night with him? His bees are wintered on the summer stands, in chaff, and other hives of that character; and being a small-fruit grower and nurseryman he does much toward properly educating the people of his locality in regard to bees and their work and production.

During the last two winters I have attended five of these institutes, held in the three above-named counties, and made special preparation to present our branch of agricultural or horticultural interest, bee-culture, etc., in the most interesting and attractive form that it was possible for me to do. If any other bee-keepers were present, they have willingly "lent a helping hand." In no case has any effort been made to induce any to engage in bee-keeping as a business, but to give, in as entertaining a way as possible, a brief natural history of bees; tell where the honey comes from, and how the bees gather, store, and ripen it; how extracted honey is secured, and if possible illustrate; tell how and in what way bees are a benefit in fertilizing and cross-fertilizing fruit and other blossoms.

Also tell about the reported injuries done to fruits, grapes, etc., by bees, and how they have been accused of "eating young ducks," etc., and correct these false impression. It is the bee-keepers' own fault if our business is not properly brought before the public at agricultural, horticultural, scientific, and other gatherings. To be sure, it is not an easy matter for a large majority, perhaps, of bee-keepers to prepare entertaining articles on our specialty; but "there is nothing like getting used to it." If one is not accustomed to it, and does not feel capable of preparing an entire article, just let such a one get, if he has it not already, a work entitled "Bees and Honey," by Thos. G. Newman, and the first fourteen pages will make an interesting introduction. It is just such information as is interesting to the general public, and written in a very interesting way. When the next opportunity presents, make a selection from Prof. Cook's Manual of Apiary, the A B C of Bee Culture, either or both, always giving proper credit, of course, and you will be surprised at the amount of interesting and valuable information that can be thus furnished to willing listeners. And now that the new edition of Langstroth on the Honey-Bee, just revised by Charles Dadant, is to be had, there seems to be no end to interesting matter. New ideas are put forth, and the old ones are put in new dress, so that one is almost "lost in wonder, love and praise."

Then the different bee-periodicals are constantly teeming with things new and old, so that, if one had nothing else to enjoy or do he might almost revel in the elysium of bee-lore. We bee-keepers should be part and parcel in all agricultural and horticultural gatherings, whether for discussion or fun and frolic, and also of many scientific and social gatherings, and should "let our light shine." In order to have the amount of time allotted to us at these gatherings we must be on hand and have a hand in making up programmes, and see that the right ones are put in to fill the bill.

Auburndale, Ohio.

SWARMING.

An Interesting Experience in Hiving Bees.

Written for the American Bee Journal

BY W. HOOD.

So far as honey-gathering is concerned, the season of 1889 has been, thus far, almost a falure in this vicinity. White clover furnished but little nectar. There is but little basswood timber near us, and what there is failed to give its usual amount of honey. Mint—our last chance—is coming into bloom, but owing to the parched condition of our sandy soil, we cannot hope for much.

This is my first season with bees and we are not on the best of terms, especially when they strike a soft spot on my armor. I think that they are a little too quick-tempered, and rather previous in their conclusions; but, thus far, I have consolation in knowing that I have killed more of them than they have of me. I have thirty-eight colonies to look after; sometimes I do it with one eye in a sling, and sometimes two.

My troubles commenced on the day that I got my bees, and will perhaps continue until one or all of us have passed into the great beyond.

They are very stubborn. They won't do anything that I expect them to do. This spring I sat around and wore the paint all off the hive-covers, expecting them to swarm; but they utterly refused to do so, until I became the laughing-stock of the village, and even my own family began "firing" squibs at me. My youngest hopeful, one day,

in passing, stopped with the remark, "Say, Dad, when are you going to Kansas?" I informed him that I never intended to emigrate to Kansas. "O," he said, "I thought that was your advertisement on page 320 of the A B C book." I stood their jeers, Micawber-like, and waited for something to turn up. It finally turned up one day in the top branches of a sturdy oak-tree, fifty feet from the ground, in the shape of two swarms of bees.

In my palmiest days I never was considered an expert climber, and how much less now that youth has long lingered on the sunny side of the hill of life! I had all the modern appliances for catching bees from the ground, but alas! my puny arm was too short with all my fixtures to gather in the benighted bees that were so lost to reason as to settle on the topmost branch of the tallest oak in the yard.

I stood around, taking it cool, as bee-men advise, and secretly hoped that my wife would volunteer to go up and fetch them, but these hopes were soon dashed to pieces, by her suggesting that if I proposed saving those bees, I had better move up the tree. Whatever she thinks, I invariably think, too, or at least *try to*.

I placed the ladder against the tree. It looked awfully short, and then, not having had any experience, I did not know which of my kit to take; so, to ease up my mind, and save coming back, I took them all—hiving-box, pole, sack, saw and rope. I succeeded very well until I reached the top of the ladder, and there my troubles began.

By hard scratching I gained a few feet, but my wind was getting short, so that I hung the box on a friendly knot, and proceded a few feet farther, where I left the pole dangling from a small limb; next the rope and then the saw were filed away for future use.

When I reached the top, or as near it as I could get, I had only the sack, and the bees were still far out of my reach. While thinking what to do next, I glanced earthward, to see if I was still in sight, and right beneath me stood my wife, with her hands on her hips, her hat tipped back, and a broad smile illuminating her usually stern countenance.

I remarked, "Why this seeming levity on so grave an occasion?" She replied, between peals of laughter, that "it seemed so funny to have a Christmas tree in June, and the funniest part of it was, to have a red-whiskered Santa Claus up in the tree-top, holding the sack, while in the pictures he always had white whiskers." One glance down the body of the tree convinced me that all that was lacking was a tin-horn and a few sleigh-bells.

I returned and brought forward my supplies. After locating myself after clothes-pin fashion, on a limb beneath the cluster, I snapped the pole to the box, and then laid for my first swarm of bees. I passed the box up till it almost touched the cluster, and then fired away.

It was a deep laid scheme, but poorly executed. A limb caught the side of the box, and I spilt the cluster, getting one half in the box, and the rest on my devoted head.

In my rambles up and down the tree I had torn a hole in my veil, which came directly over one eye; before I got into position to defend myself, about two quarts of bees had gone in and registered. I began to get hot, both in mind and body, but I succeeded in landing them on the earth, and emptying them in front of a hive; and up the tree again after the others.

When I arrived at the top, I found two swarms instead of one. I soon had one of them down in front of the hive, and back after the remaining swarm. When I again reached the top, instead of one, I found two swarms hanging as quietly as if they had hung for years. I gathered in one and carried it down and filled another hive. While toiling up the tree after the last one, puffing like an engine, I decided that if the rush continued, I would order a car-load of hives, and employ the village hook-and-ladder company for a few weeks to help me out.

I got the last one down all right, and then while all was quiet, I went to examine No. 1, to see if they had settled down to business yet. I lifted the cover gently, and peeked in. There was not a solitary bee there to defend the castle! Nos. 2 and 3 were the same. A streak of light began to dawn upon my benighted mind—those bees, as the boys would say, "had been monkeying with me," while I had toiled up the body of the tree, they went straight across and were waiting to be carried down.

To say that I was mad, would be putting it rather mild. I had labored fully two hours in the heat of the day, and had one eye fast closing on the beauties of earth, my clothes dilapidated, the bark worn from the oak, ditto my side that came between me and the tree. I never allow myself to use profane language, nor approve of its use on all occasions, but had a "street Arab" happened along, that could have done the case justice, he would have struck a paying job.

My wife intimates that it is not necessary for me to hire anyone to do my talking for me, even if I do not swear. I may possibly have spoken disrespectfully of their parents, and think I did intimate that I should be highly pleased to have the lightning remove all future swarms that have such high notions.

Some ladies may think it fun for an old fellow to hive bees, when he has to climb rough-bark trees until he gets stuck full of knot-holes, and does not have rind enough left on his carcass to make a cover for a base-ball; but *I* do not think so.

My burdens are so heavy that I fear I shall have to join the Bee-keepers' Union, get a divorce, or swear off on keeping bees.

P. S.—I would tell what become of the swarm that I did save, only I am afraid that I would be laughed at.

Spring Green, Wis.

HOUSE-KEEPING.

Some Old Cook-Books—Honey Used in Cooking.

Written for the Illustrated Home Journal

BY LUCY LANGDON.

Among the cook-books in my possession is one dated 1836, another 1839, another 1840, and still another 1845. The last is entitled, "Every Lady's Book," and is arranged "By a Lady of New York." The title page declares it to be, "An instructor in the art of making every variety of plain and fancy cakes, pastry, confectionery, blanc mange, jellies and ice-creams; and containing other useful information for ordinary holiday occasions."

The most noticeable feature in this book is the frequency with which wine, brandy and punch occur in the directions. In this particular, surely the world moves. Also, the recipes make quite expensive "dishes."

Far more economical is "The Good House-keeper," dated Boston, 1840; which claims to be, "The Way to Live Well, and be Well while we Live," by Mrs. Sarah J. Hale, author of "The Ladies Wreath," "Traits of American Life," and "Northwood."

Of this cook-book there were two edtions, the second containing extracts from a cook-book prepared by Sir Walter Scott, under the *nom de plume* of "Mrs. Margaret Dods," and an amusing account of the experiments of the "Cleikum Club." Sir Walter extols French cooking, and calls upon the Muse to

Sing the man who to Paris did go,
That he might taste their soup, and their sauces know.

In the first-mentioned book, I find the following recipes:

"To preserve bees from worms and insects: About May 1 raise the hives and sprinkle some fine salt under the edges."

"To separate wax from the comb: Tie the comb in a bag, and place it in

a kettle of cold water over the fire. As the water heats, the comb melts and rises to the surface, while the impurities remain in the bag."

"To make the teeth white: Rub them with a mixture of pure honey and charcoal."

"HONEY CAKE:—3½ pounds of flour, 1½ pounds of honey, ½ pound of sugar, ½ pound of butter, ½ of a nutmeg, 1 tea-spoonful of ginger, and 1 tea-spoonful of salarratus (I keep the old spelling). Roll thin, cut in small cakes, and bake in a quick oven."

MRS. MADISON'S WHIM:—2 pounds of flour, 2 pounds of sugar, 2 pounds of butter, beaten to a cream; 12 eggs, the yolks beaten with the sugar, and the whites to a froth; 2 wine glasses of rose-water or brandy, in which lemon-rinds have been steeped; 2 nutmegs grated, 1 tea-spoonful of salarratus or volatile salts, dissolved in hot water. Beat well together, add 2 pounds of raisins, stoned and chopped; bake in a quick oven. This cake will keep for three months."

In the "American Frugal Housewife" (1836), by Lydia Maria Child, we are told that "honey and milk is good for worms."

The necessity of frequent eating in these hot, oppressive days, sometimes becomes very wearisome to the housekeeper. For the benefit of such, and for the sake of adding dignity and grace to such a humdrum thing as getting breakfast and dinner, I give a few quotations from known *Literati*. Here is a recipe for "Salad Dressing," by Sidney Smith:

To make this condiment, your poet begs
The powdered yellow of two hard-boiled eggs;
Two boiled potatoes, passed through kitchen sieve,
Smoothness and softness to the salad give.
Let onion atoms lurk within the bowl,
And half-suspected animates the whole.
Of mordant mustard add a single spoon—
Distrust the condiment that bites too soon;
But, deem it not, thou man of herbs, a fault,
To add a double quantity of salt.
Four times the spoon with oil from Lucian crown,
And twice with vinegar procured from town;
And, lastly, o'er the flavored compound toss
A magic soupcon of Anchovy sauce.

Some anonymous writer declares that bread is

The very staff of life,
The comfort of the husband, the pride of the wife.

Another thus sings of cake:

With weights and measures just and true,
Oven of even heat,
Well buttered tins and quiet nerves,
Success will be complete.

Again, "To make a salad one must have a spark of genius." Also, "The proof of the pudding lies in the eating;" and, "A hasty plate of soup."

Solomon said: "All the labor of man is for his mouth."

Owen Meredith writes:

We may live without friends, we may live without books,
But civilized man cannot live without cooks.

Longfellow said: "Who'll dare deny the truth, there's poetry in pie?"

Shelley writes: "Custards for supper, and an endless host of other such lady-like luxuries."

Cicero: "Hunger is the best sauce."

Massinger: "Cheerful looks make every dish a feast."

Shakespeare: "And then to breakfast with what appetite you have." "Now, good digestion, wait on appetite." "What say you to a piece of beef and mustard?"

I will close with two seasonable recipes:

FRUIT SALAD (for dessert):— "Slice 3 oranges, 3 bananas, 1 lemon, and 1 pine-apple, and add 3 cups of sugar; let it stand 3 hours, and serve with cake."

SMALL FRUITS PRESERVED WITHOUT COOKING:—"Crush the fruit and add ¾ of a pound of sugar to 1 pound of fruit. Stir several times from the bottom. When all the sugar is absorbed by the fruit, put it in air-tight cans or jars."

HONEY.

What is It, if It is Not "Digested Nectar?"

Written for the American Bee Journal

BY PROF. A. J. COOK.

Such articles as that on page 486, surprise me very much; especially that a person who subscribes himself "Dr.," would do so. Perhaps we can excuse a lawyer for such palpable ignorance, but how, a doctor? Nearly every assertion there made is untrue, as any doctor ought easily to convince himself. Cane-sugar fed to bees is changed to a glucose-like sugar, and from a neutral to an acid substance.

Does the Doctor know what litmus paper is? If so, let him dip such paper into sugar syrup, then into honey, which is the same syrup digested, and he will see his error.

Does the Doctor know of Fehling's test for glucose-like sugar? If so, let him try it on the syrup, then on the "honey" made from it; he will find that the first does not decompose the copper salt, while the latter does. Now this is all true of nectar and honey. Neetar is neutral, and cane-sugar, with this formula, C_{12} H_{22} O_{11}; while honey is acid, with this composition, $2(C_6$ H_{12} $O_6)$. To say that nectar and honey are identical, shows a total ignorance of the subject.

Our friends, whether they be lawyers or doctors, should inform themselves before they speak; especially when it is so easy to do so. We never gain anything by concealing or misrepresenting the truth.

I would never lie to make people eat more honey. Thus I shall continue to speak the truth, and say that honey is "digested nectar;" and as long as honey is so good, I shall have no fear about people rejecting it from their tables, because of this fact. Everybody knows just what an oyster is; yet who refuses to eat oysters?

I earnestly hope that the Doctor will "post up," and then beg the pardon of bee-keepers. I forgive him in advance.

Agricultural College, Mich.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Aug. 20.—Northern Illinois, at Guilford, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

Aug. 31.—Haldimand, at Fisherville, Ont.
E. C. Campbell, Sec., Cayuga, Ont.

Sept. —.—Maine, at Livermore Falls, Me.
J. F. Fuller, Sec., Oxford, Me.

Sept. 3.—Iowa State, at DesMoines, Iowa.
J. W. More, Sec., DesMoines, Iowa.

Sept. 5.—Erie County, at Buffalo, N. Y.
O. L. Hershiser, Cor. Sec., Big Tree Corner, N. Y.

Sept. 14.—Susquehanna Co., at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Oct. 16—18.—Northwestern, at Chicago, Ills.
W. Z. Hutchinson, Sec., Flint, Mich.

Dec. 4, 6.—International, at Brantford, Ont., Canada.
E. F. Holtermann, Sec., Brantford, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Melilot-Clover Honey. — Wm. Stolley, Grand Island, Nebr., on Aug. 2, 1889, says:

Notwithstanding the excessively wet and cold weather that we have had here in central Nebraska of late, the bees are doing very well, and from my limited number of colonies, I have so far already secured 1,000 pounds of melilot-clover honey.

Drone-Comb, Buckwheat, etc. —T. F. Kinsel, Shiloh, O., on Aug. 3, 1888, writes:

As a result of experiment and experience I would say that "worker foundation" will not *prevent* drone-comb, though given in full sheets. Bees draw out foundation and *enlarge the cells* to accommodate drone-brood, if they want drones. Bees gather honey and pollen from buckwheat and work on it only in the forenoon; unless the weather is lowery, damp or reasonably cool, they work all day. I have 5 acres of Japanese buckwheat sown and it is now in blossom. Bees work yet on white clover, though through cool wet

weather during apple, clover and basswood bloom, the surplus will not be large. The recent copious rains have caused white clover to come out in bloom and secrete nectar. Can Alsike be delayed by pasturing, and thereby secrete nectar out of its natural season of blooming? Who has tried it? I never knew white clover to secrete, out of season, so much as this year. I have had no swarms. I have had bees enough and do not allow swarming. It is no patent process—just cut out the queen-cells and shave off the drone's heads. Wicked? Selah! It is not half so hard as to see the poor "fellows" driven out and starved to death.

Only One-Third of a Crop.—Sidney S. Sleeper, Holland, N. Y., on Aug. 5, 1889, writes:

I shall have to report about as Mr. Doolittle has—⅓ of a crop; that is, if we get a good supply of buckwheat and fall honey. Now, the prospects look very good. Our white honey crop was very small—not enough to supply the home demand.

Light Crop of White Honey.—A. W. Smith, Parksville, N. Y., on Aug. 5, 1889, says:

The crop of white honey in this locality is very light—probably ¼ of an average crop, or a little less; and what there is, is not of very good quality, as there has been so much rain.

Wood-Sage and Loose-Strife.—Geo. W. Hanson, Chapman, Kans., writes:

I send two kinds of flowers that bees gather honey from. Please give me their names in the BEE JOURNAL. The AMERICAN BEE JOURNAL is a welcome visitor to our house, and is read before any other papers.

[No. 1 is "wood-sage" (*Teucrium Canadense L.*), of order Labiata. No. 2 is "loose-strife" (*Lythrum alatum Pursh.*) order Lythracea.—CLARENCE M. WEED.]

Bee-Pasturage — Saving Seed.—Louis Ahlborn, Patriot, O., on Aug. 3, 1889, says:

Bees have been doing well in this part of Ohio for having so much rain. I commenced the season of 1881 with 4 colonies, and increased them, by natural swarming, to 83, which now are in good condition. I have a bee-shed. In winter I pack my bees on their summer stands, with straw around them, and fodder put on the outside. I have two tiers of hives, one above another. 1. Will it pay to let sumac and persimmon grow up for bee-pasture? 2. In saving the seed from mammoth or pea-vine clover, is the first or second crop saved?

[1. Yes. 2. We think it is the seed from the first crop that is saved.—ED.]

Bees Doing First-Rate.—James Jaggard, Oak Hill, Ills., on August 1, 1889, writes:

Bees are doing first-rate. Each of 5 colonies in 10-frame Langstroth hives, have stored 80 pounds of honey. The basswood did very well this year; our hillsides are full of it.

Bee-Parasite.—Mr. C. C. Parsons, Mount Pleasant, Texas, on Aug. 4, 1889, writes:

Some time since I wrote about worms (moth-larvæ) injuring my trees, and the editor wrote me for a more definite statement. You will find in the AMERICAN BEE JOURNAL for July 20, 1889, on page 452, a description of the insect in question, by Dr. W. B. Rohmer, of Grand Bay, Ala. While the insect may be a wax-moth, its greatest work of destruction is caused by the larvæ penetrating the cells of capped brood. I have not been able to tell whether it feeds upon the young brood or not. Stray colonies are not exempt from its depredations. How to get rid of the pest is the question. Can Prof. Cook tell us through the BEE JOURNAL?

[If Mr. Parsons or Dr. Rohmer will send me specimens, I will cheerfully answer. In order to speak correctly in such cases, one must see the insects.—A. J. COOK.]

The Michigan State Fair.—H. D. Cutting, of Clinton, Mich., says:

The Michigan Agricultural Society has made some important changes in the Bee and Honey department for 1889. Instead of exhibiting full colonies of bees, the premium list calls for "nucleus colony." It was the intention to have it read "1-frame nucleus," as it gives so much better satisfaction to the visitors and exhibitors; it will be adopted by many other exhibitions. If those contemplating making an exhibit of bees will bring just one frame in each nucleus, it will save much confusion with the judging. Extracted honey, which had been dropped from the list, has been replaced, and the premium raised to put it on par with comb honey. The Michigan bee-keepers try to make it pleasant for all exhibitors outside of the State, and cordially invite all to come and make an exhibit.

Honey and Beeswax Market.

DENVER.

HONEY.—We quote: New in 1-lb. sections arriving freely at 16@18c.; extracted, 6@8c.
BEESWAX.—18@20c.
Aug. 10. J. M. CLARK COM. CO., 1421 15th St.

CHICAGO.

HONEY.—New honey arriving freely, and all the shipments have been promptly closed out so far. We quote: 1-lb. white clover, according to style of package and appearance, 14@16c. Receipts of extracted increasing; demand light, at 6@8c.
BEESWAX.—25c.
Aug. 1. S. T. FISH & CO., 189 S. Water St.

NEW YORK.

HONEY.—New extracted sells as fast as it arrives. Orange blossom, 7¼@7½c.; inferior Southern, 70@75 cts. per gallon. Some demand for the comb, but we have no stock yet.
July 22. F. G. STROHMEYER & CO., 122 Water St.

MILWAUKEE.

HONEY.—Old crop nearly gone, and new begins to appear, the quality being fine. We quote: New white 1-lbs., 15@16c. Extracted, white, in barrels and kegs, 7@8c.; in tin and pails, 7½@8½c.
BEESWAX.—23@28c.
July 16. A. V. BISHOP, 142 W. Water St.

KANSAS CITY.

HONEY.—Old crop all gone. New 1-pounds, 16c.; 2-lbs., 14c. No California comb in the market. Extracted, white, 8c.; amber, 7@8c
Aug. 7. HAMBLIN & BEARSS, 514 Walnut St.

CHICAGO.

HONEY.—New crop is appearing, and prices range from 15@17c. An active market is not looked for till later. Extracted, new crop, 7@8c. Very light receipts, and few sales.
BEESWAX.—25c. R. A. BURNETT.
July 11. 161 South Water St.

DETROIT.

HONEY.—New crop is coming in slowly, and sells at 14@15c. for comb. No desirable old stock left.
BEESWAX.—24@25c.
July 24. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—New white comb in 1-lb. sections sells at 16@17c. White extracted, 7@7½c.; dark, in barrels, 6c. An active demand is not expected before Sept. 1. No new extracted in the market.
BEESWAX.—None in the market.
July 20. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Extracted, bright, 6½c; dark, 5½c. The market is slow.
BEESWAX.—Scarce at 23c. for prime.
July 20. D. G. TUTT & CO., Cummercial St.

NEW YORK.

HONEY.—Market for extracted is quite active. Orange blossom, fine quality, sells readily at from 7@7½c. Off grades of Southern find quick sales at 60@70c. per gallon. No new California honey on this market. Extracted would bring from 7½@8c.—Too early to quote prices on new comb.
BEESWAX.—Dull and declining—25@25½c., good yellow.
HILDRETH BROS. & SEGELKEN,
July 22. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote: Comb, 17@18c.; extracted, 8@9c. Sales a little slow on account of the warm weather. Quality of new honey is very good.
BEESWAX.—25c.
Aug. 9. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb., and comb honey, in 1 and 2 lb. sections, 12@15c., for which demand is good. Trade is also good in the extracted, in square glass jars for table use, and in barrels for manufacturers.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Aug. 9. C. F. MUTH & SON, Freeman & Central Av.

Convention in Chicago.—By notice on page 501, it will be seen that we are to have a convention of bee-keepers in Chicago this fall. The time is Oct. 16, 17 and 18. The place is at the Commercial Hotel, when we had such a nice time at the "National," in 1887. Reduced rates are given at the Hotel, and reduced rates may also be had on all the railroads, because it comes near the close of the Chicago Exposition. Every arrangement will be made for the convenience, comfort and pleasure of those who attend. Let there be a generally rally, and "a good time" will be the result.

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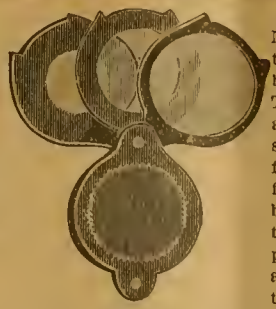
Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.



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International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

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Canadian Bee Journal	2 00	1 80
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The 8 above-named papers	5 65	5 00
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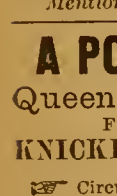

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THIS new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **Price, 75 cents per dozen, or $5.00 per 100.**

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SECTION-CASE.
BEES AND QUEENS. Send for free catalogue. Address
FRANK A. EATON,
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SEND $1 for a Choice Untested Carniolan Queen. Send Registered Letter or Express Money Order. A. EASTMAN,
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My 21st Annual Price-List of Italian, Cyprian and Holy-Land Bees, Queens and Nuclei Colonies (a specialty) also Supplies—will be sent to all who send their names and addresses. H. H. BROWN,
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WE CAN now furnish the Van Deusen EXTRA-THIN Flat-Bottom FOUNDATION put up in 25-lb. Boxes, in sheets 16½x28 inches, at $12.50 per box. 12 ft. to the lb.
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WOOD'S ITALIAN QUEENS will be shipped by Return Mail to any address in the U. S. or Canada for $8.00 per dozen—75 cts. each, if less than one dozen is ordered. Single Queens to Canada, 85 cts.

My Queens are all Warranted Purely Mated, and Safe Arrival Guaranteed. Remember, that if a single Queen proves Mismated, she will be replaced by a Select Tested one. Not one Queen in 100 mismated last season. As I am isolated from other Bees, hence I am able to make this offer to all.

I use no Lamp-Nursery, and every Queen has filled several combs with Eggs before she is shipped. If you want Fine, Large Queens, that are almost certain to prove to be Purely Mated, send your Orders to,

JAMES F. WOOD,
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GLASS PAILS

FOR HONEY.

THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.
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To hold 1 pound of honey, per dozen,	$1.60
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IS published every week, at 6s. 6d. per annum. It contains the very best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley Herts, England.
Mention the American Bee Journal.

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD.
PUBLISHED BY
THOS. G. NEWMAN & SON,
CHICAGO, ILL.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Aug. 24, 1889. No. 34.

EDITORIAL BUZZINGS.

My Baby's Face.—On the next two pages we present another beautiful piece of music, which doubtless will find a pleasant welcome in all bee-keepers' homes, around whose firesides are woot to play these happy baby faces. Some of those homes may be babyless to-day, which but recently were made joyous and happy by the prattle and laughing sunshine of the little darlings' angelic faces; and to such we trust that not only the sweet melody of the song, but also the touching sentiment expressed by the words, may help to make more blessed the "living memory" of the "sweet baby faces" which are now "up there with my Father," who has also "saved a place for you."

A Patent was granted on Aug. 13, 1889, to L. W. Spradlin, of Kansas, for a "bee-house." It says: "The bee-house is built of ordinary coustruction, having suitable studding for supporting the same. The inside of the house is lathed and plastered in the usual manner, and the intermediate space filled with sawdust, in order that the house may be dry and cool in summer and warm in winter," etc. Its floor is of "rock," cemented, and has a ventilator in the roof. The patent is "*rich*," but we fear the patentee never will be enriched by it.

Having a Few extra sets of the AMERICAN BEE JOURNAL for the years 1887 and 1888, we will supply both these years, and 1889 and 1890, for $3.00, until all are sold. Or we will send 1888, 1889 and 1890 for $2.50, all by mail, postage paid. These are very valuable, and those who have not yet read them should lose no time in securing them.

All the Votes received so far, at this office, have been for the Golden-Rod as the National Flower.

The S. W. Rich Lawsuit, which we mentioned on page 515 of our last issue, it seems has been tried by the "Supreme Court," and the next resort is the "Court of Appeals." They call the Courts by different names in New York from what we do in the West. There they also call the judge of one of their Courts a "Recorder," instead of Judge. Mr. John McKeon, Dryden, N. Y., sends this correction of the matter:

You say that the case was tried in the County Court before Judge Boardman. Judge Douglass Boardman was a Judge of the Supreme or Circuit Court, and the case was tried in the Circuit Court at Delhi, New York. The next highest Court is the General Term of the Supreme Court, and that is the Court which confirmed the decision of the Circuit Court last month. The next higher Court, which is also of last resort, is the Court of Appeals.

Thanks for the correction. It means the same thing, only the names differ. The "Court of last resort" in New York is the Court of Appeals—in many other States it is called the "Supreme Court." In National affairs, also, the Court of last resort is the "United States Supreme Court." This will account for our misnaming the Courts in New York. The *facts* remain unchanged.

Mr. McKeon adds: "Judge Boardman has been caught by old age, and will never again decide against the bees. He is retired." It is a *relief* to know that the Judge who likened an apiary to a "pig-sty," or a "slaughter-house," is now retired to private life. We fear he is in his "dotage."

Swarming.—"I should be glad if I could prevent so much swarming." That is what Dr. Miller and all other prominent bee-culturists would like to do. A writer in the *Prairie Farmer* tells us how to do it. It would be big money in his pocket if he would go around and keep bees from swarmiug. I could afford to go down pretty deep in mine. Why do bees swarm, and why do people get married? Why do birds build nests? The Creator commands them to "multiply and replenish the earth," and when the bees swarm they "found" another family.

As to cutting out queen-cells to prevent swarming, I have had a great many swarms that had not even started a queen-cell. Second swarms may be prevented by cutting out queen-cells, but not the first. The writer claims he "can control swarming every time." This is what I cannot do, and what those who own bees by the thousands of colonies would be glad to do. This question, like Banquo's ghost, is always present at all bee-conventions, and no one has ever claimed to be able to solve it.—*Prairie Farmer.*

Last week's Frank Leslie's Illustrated Newspaper shows a strong artistic taste. The Highland Light, President Harrison's visit at Bar Harbor, The Cricket Plague in Algeria, make it the best number under the new proprietors.

White Clover Honey.—A subscriber to the Massachusetts *Ploughman* asks: "Do bees really obtain from white clover as much honey as is supposed? I never see many bees on white clover, and farmers say the same." It is answered thus:

White clover is the best of the small honey plants, but the yield, quantity and duration of flower, depend upon the season. In some seasons it secretes honey only two or three weeks, and, often, no honey is found in the blossoms after the sun is high in the heavens. The reason you do not see the bees working on the blossoms may be that the bees visit the plants only very early in the morning, before the sun is above the horizon.

A farmer sowed buckwheat for his bees, and to plow under as a fertilizer. Visiting the field several times during the day, he was surprised that he could not see nor hear a bee anywhere in the field. He decided to plow under an once, and went to the field for the purpose very early in the morning. Such a bee-picnic, such a carnival of bee sounds greeted him, that he did not dare to drive the horse on to the buckwheat. At that time in the season, buckwheat secreted honey only in the night, and it must be snatched before the sun came up when it would be lost.

The same fact applies, more or less, to clover after the 1st of July. But whatever comes from white clover is the most delicate, most delicious of its kind.

Canadian News is thus given in the last *Honey Producer:*

Almost all necessary steps have been taken to secure a very hearty reception to the members of the International American Bee-Association when convening, in December next, at Brantford.

The honey season to date, (July 10) has been remarkable neither for its success as such, or its falure. Of course localities vary considerably. The amount of honey secured has been affected by the strength of the colonies when the season opened. The number of colonies kept in a locality no doubt also influences the crop. On the whole, a fair crop thus far has been secured. Linden will tell the tale.

Upon the question of misrepresentations about honey and the like, Bro. Newman of the AMERICAN BEE JOURNAL, is continually compelling the leading papers of the continent to withdraw statements made, and statements which if not retuted would be very injurious to the bee-keeping industry. We congratulate Mr. Newman and trust he may continue to perform this often *unpleasant* task, without flinching.

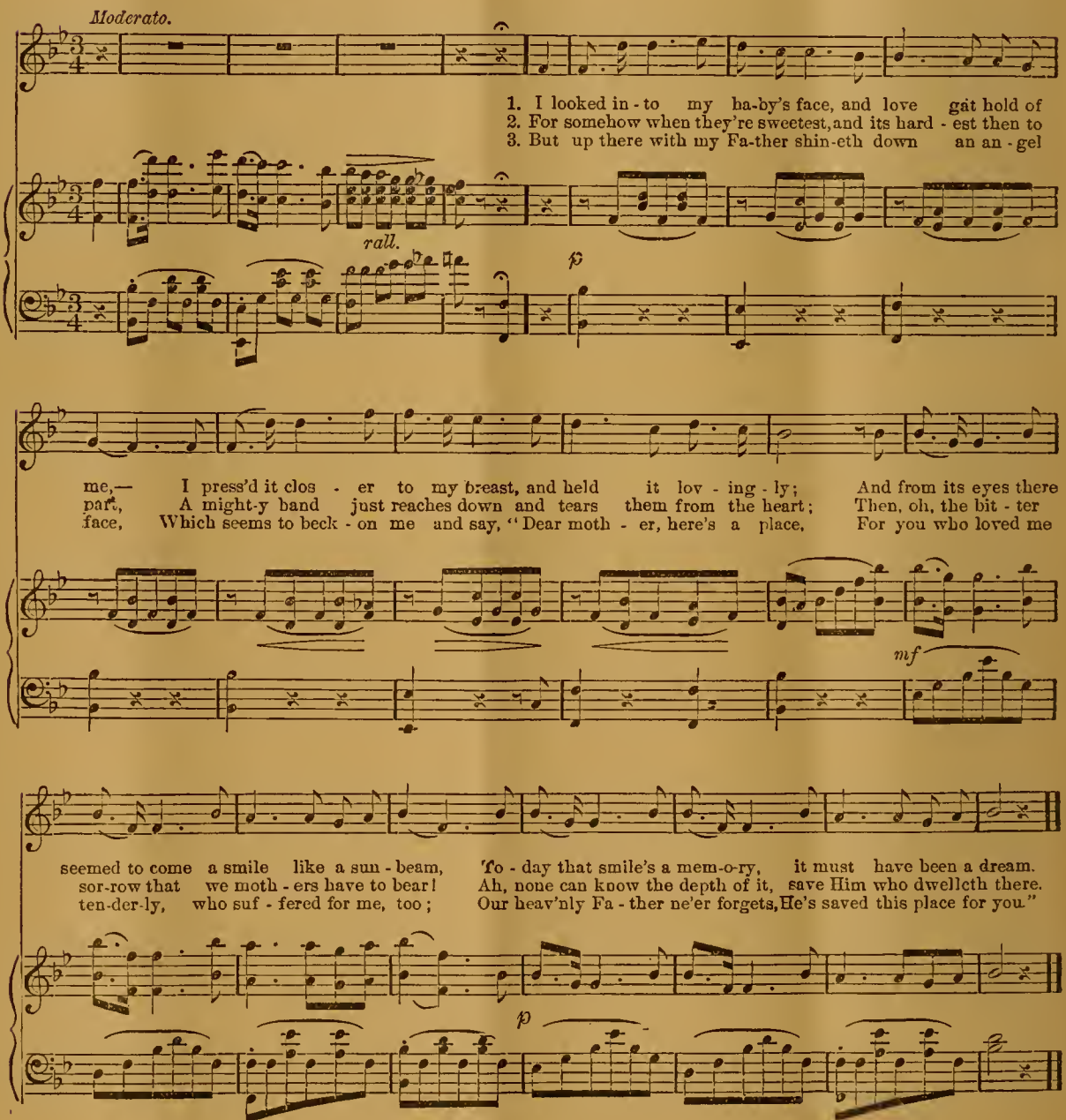
Bees Looking for their Tormentor.—The following item is taken from an exchange:

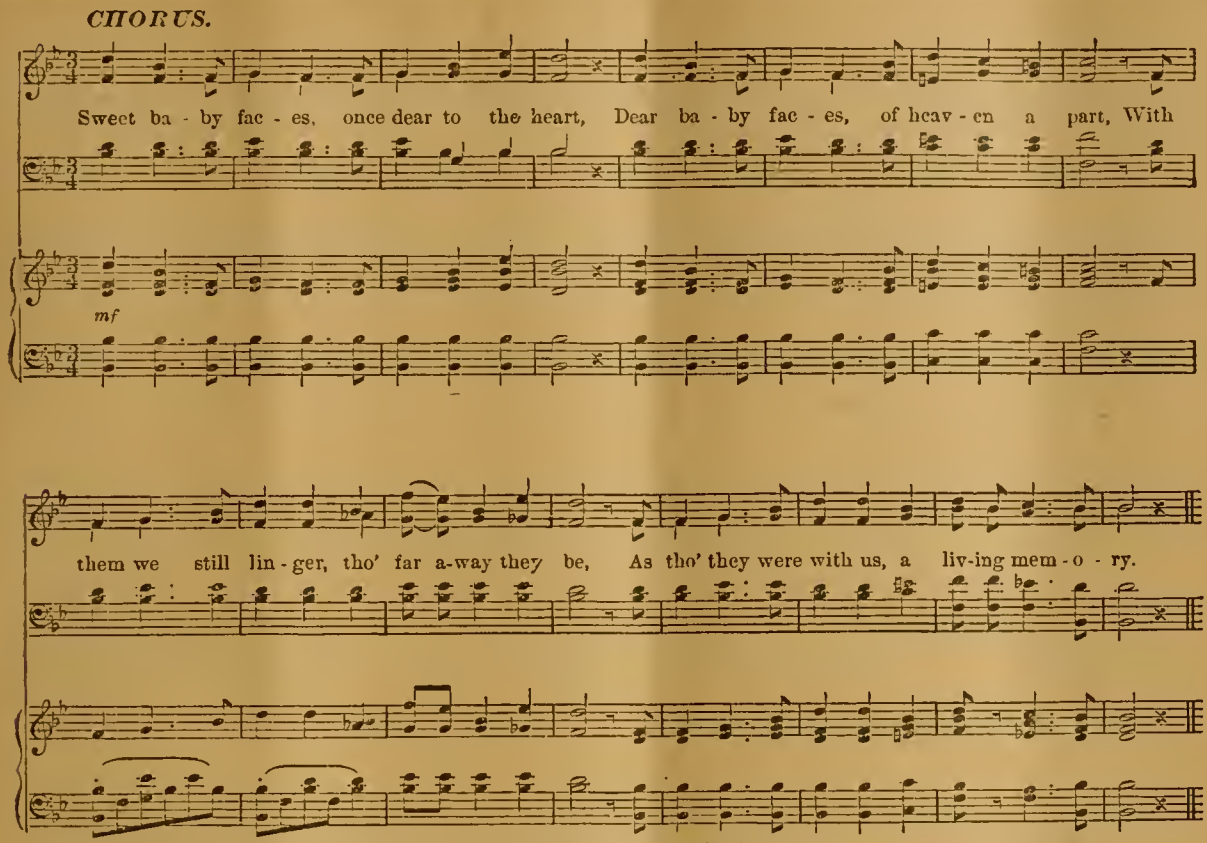
A steamer which arrived at Colombo recently from Bombay via coast ports, reports that at Cannonore, where she lay two miles from the shore, a large swarm of bees, numbering some tens of thousands, settled on her foreyard, forming a cluster about three feet long by eighteen inches in depth. It was considered inadvisable to attempt to dislodge them before the arrival of the vessel at Colombo, as at each of the coast ports she lay some miles from the shore. But several nights after, the third officer, enveloped in a blanket and armed with a hose, climbed the mast and gave the dangerous visitors a dose of salt water. The infuriated bees flew about the ship all night in search of their disturber, but not finding him in the morning, they concluded to quit. They were last seen making a bee-line for the northern suburb of Colombo.

MY BABY'S FACE.

Written expressly for The American Press Association.

By JOHN de WITT.


Moderato.
1. I looked in - to my ba-by's face, and love gat hold of
2. For somehow when they're sweetest, and its hard - est then to
3. But up there with my Fa-ther shin-eth down an an - gel
rall.
p
me,— I press'd it clos - er to my breast, and held it lov - ing - ly; And from its eyes there
part, A might-y hand just reaches down and tears them from the heart; Then, oh, the bit - ter
face, Which seems to beck - on me and say, "Dear moth - er, here's a place, For you who loved me
mf
seemed to come a smile like a sun - beam, To - day that smile's a mem-o-ry, it must have been a dream.
sor-row that we moth - ers have to bear! Ah, none can know the depth of it, save Him who dwelleth there.
ten-der-ly, who suf - fered for me, too; Our heav'nly Fa - ther ne'er forgets, He's saved this place for you."
p


CHORUS.
Sweet ba - by fac - es, once dear to the heart, Dear ba - by fac - es, of heav - en a part, With
mf
them we still lin - ger, tho' far a-way they be, As tho' they were with us, a liv-ing mem - o - ry.

Copyright, 1889, by John de Witt.

The What and Why of Agricultural Experiment Stations—Farmers' Bulletin No. 1—issued by the Office of Experiment Stations of the U. S. Department of Agriculture, Prof. W. O. Atwater, Director. This is a brief account of the Experiment Stations, what they are, what they are doing, and how they do it, together with a short history of the origin and development of Experiment Station work in this country, and an account of the work in the same line in Europe. An immense amount of interesting and valuable information is compressed within the narrow limits, 16 pages, of this little pamphlet. Amongst other things we learn that no other country in the world has undertaken scientific work for the benefit of its farmers on such a vast scale as the United States; that in a great many cases a single line of investigation pursued at an experiment station has saved more money to the farmers of the State than its entire cost of maintenance; that the effect on the farmers themselves in spite of the short time the experiment stations have been in existence has been most marked, inducing them to seek to apply the results of scientific research to their work. This work costs the country, including both state and national appropriations, over $700,000, and employs over 370 scientific men. This expense, however, is a trifling one in comparison with the annual value of our agricultural products, which is not less than 2,200 million dollars.

GOLDEN-ROD.

From the flying train, behold,
Ever changing fields of gold,
Sunny slopes in luster laid,
And old gold the hills in shade;
Golden, golden! Wave the plume,
Freedom's fallows give the room;
Unsubdued by wit of man,
Symbol flower, American.

Like a bit of sky at night,
Full of constellation light,
Comes the vision of the plume
Bending o'er with starry bloom,
Sunshine, dew and burnished gold,
Each declare the story old,
How in endless chain of thought,
Wisdom unto wonder wrought.

Symbol flow'r American,
Underneath I see thy plan—
Brotherhood of stems that run
Closer till they meet in one.
Type of higher federation—
States unite, and lo, a nation!
To the world the lesson give,
How to govern, how to live.

Rich the bounty, here we see,
To the pople ever free;
Plenty flows as beauty beams
In a thousand golden streams.
To a nation Golden-Rod
Lifts its head above the sod,
Love and justice to propose,
Gold for friends, and rod for foes.

—*Vick's Magazine* for August.

The "Queen-Breeders' Journal" is to be consolidated with the "Western Apiarian." It lived six months.

Convention Notices.

☞ The Northwestern Bee-Keepers' Society will hold its annual convention at the Commercial Hotel, corner of Lake and Dearborn Sts., in Chicago, Ills., on Wednesday, Thursday and Friday, Oct. 16, 17 and 18, 1889. Arrangements have been made with the Hotel for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day for each person. This date occurs during the Exposition, when excursion rates on the railroads will be very low. There has been a fair crop of honey in the West, and an old-time crowd may be expected at this revival of the Northwestern from its "hibernation."

W. Z. HUTCHINSON, *Sec.*

☞ The fifth semi-annual meeting of the Susquehanna Bee-Keepers' Association will be held at New Milford, Pa., on Saturday, Sept. 14, 1889, at 10 a.m. There will be essays on different subjects, and also a question-box. Bring your wives along, and please invite your neighbors who are interested in bee-keeping, to come with you. If you have anything new, or that would be of interest in any way, of implements or fixtures, bring them, so that all may see them.

H. M. SEELEY, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec. Romney, Ont., Canada.

☞ The Iowa State Bee-Keepers' Association will meet at the State Fair Grounds during the State Fair week, commencing on Sept. 3, at DesMoines. The meetings will be held in our large Tent, and an invitation is given to all bee-keepers to meet with us, bringing their families and friends, and help to make our meeting one of interest to all bee-keepers.

MRS. O. F. JACKSON, *Pres.*

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

QUERIES AND REPLIES.

Future Inventions and Experiments in Appiculture.

Written for the American Bee Journal

Query 650.—1. Of what nature will be the next economic invention? 2. What great ecomomic invention is most needed, and now called for by honey-producers? 3. Does anything remain to be invented by man, which shall be as revolutionary in its effects as the application of movable-comb frames? 4. Have we arrived at the summit of excellence in our apicultural implements and fixtures? 5. Is it worth an inventor's time to make improvements? That is, could he receive remuneratioo, or a respectable hearing from supply manufacturers? 6. What experiment is required as to breeding bees?—First, as to grade, heredity, "blood," character and color; Second, as to hardiness and honey-gathering. —J. W. Tefft.

You have taken my breath away. This is too much, all at once.—H. D. CUTTING.

1. I give it up. 2. Ask Messrs. Heddon, Bingham and Shuck. I think the great hope is in the direction of breeding. Much may be done in that. —A. J. COOK.

1. I do not know—probably a bee with a longer tongue. 2. Nothing more is needed. 3. No. 4. Yes. 5. No, it is not worth his time till after it is done—then, if he is succesful, it pays. Everybody can have a respectable hearing.—MAHALA B. CHADDOCK.

When the bee-keepers of the country feel the need of something radically different from what we now have, some one will arise to supply the want.—G. M. DOOLITTLE.

If I could answer all these questions, I would astonish the world by bringing forward the discoverics, and talk about them afterward.—EUGENE SECOR.

1. To prevent swarming. 2. A machine that will uncap and extract at the same time. 3. No. 4. About half way. 6. Breed always from the best.—MRS. L. HARRISON.

1. Who knows? 2. Very likely the next important invention will come unasked, just as the extractor did. 3. I cannot tell till after its invention. 4. Probably not. 5. A real improvement would doubtless command attention—C. C. MILLER.

1. In all probability, a telephone to the moon. 2. A process by which they can realize the most money from the sale of their products. 3. Yes, sir, a machine to keep Alliance men, Wheat men, etc., in the ranks until trusts and combines are "bursted." 4. No. 5. Yes. 6. This ground has been thoroughly gone over.—J. P. H. BROWN.

1. I do not know. 2. A cheaper and better extractor is yet to be invented; and, I believe that a way will yet be found by which most of our sugar will be made of honey. 3. I believe so—many things. 4. No! not by many miles! 5. Yes. 6. In answer to this question, the first great experiment should be to find some cheap and practical way of breeding queens at control. If this were made possible, the great and unexpected results would be obtained. There is a great field here for the explorer, and it is worthy of his attention.—WILL M. BARNUM.

1. This is a *stunner*—I give it up. 2. To produce plenty of bloom, and put the honey in it. 3. Certainly, and some man will bring it out. 4. Yes, if *really* an improvement. Manufacturers would readily take hold of anything of real merit.—C. H. DIBBERN.

1. I do not know. 2. If I knew, I would supply the need by the invention. 3. I think not. 4. I presume not. 5. That depends upon whether he can invent anything of real value. 6. It would require a series of articles to answer this question.—M. MAHIN.

1. It will not be a hive composed of enough lumber to build a small house. 2. I do not know. 3. I think not. 4. In many things we have. 5. Probably not. 6. It is not easy to fore-cast the results of experiments; they must be made, and the requirements and results determined by subsequent observation.—G. L. TINKER.

1. Who can tell? 2. Who knows? 3. I think not. 4. Pretty nearly so, as the field is narrow, and is pretty well occupied. 5. I do not think that any patent on bee-hives or appliances, will be a paying thing. 6. It would take a whole volume to answer this question. A single experiment would amount to nothing, as it will take years to fix any essential trait, and then prove nothing.—J. E. POND.

1. What? 2. Several; but what are they? 3. No doubt it will be many years yet, but it will come. 4. We have got pretty high, but not to the summit yet. 5. It depends upon the improvements. No doubt, if his invention is useful, etc. 6. Practical experience, intelligence, energy and good judgment.—P. L. VIALLON.

1. I do not know, but I wish it might be something that would do the household drudgery, now done by our good wives and mothers. 2. Something to prevent the swarming impulse in bees, when the mercury is trying to reach 100° in the shade. 3. I guess not. 4. I believe not. 5. Yes, but all inventions are not improvements. 6. An answer would require too much room for this department.—A. B. MASON.

1. A stunner. 2. Non-swarming, non-drone-producing, queen-fertilizing hive. 3. Yes—the above. 4. Who can tell when we are at the top round of the ladder? 5. If the improvements are of sufficient magnitude, yes; and the inventor should receive a handsome competence, and "paddle his own canoe," by manufacturing then himself. 6. I will leave this to Doolittle and others more competent.—J. M. HAMBAUGH.

1. I am not a prophet, Mr. Tefft. 2. An automatic machine to do all the work in the apiary, while I stretch my bones in the shady arbor, and look complacently on, or doze dreamily under the soothing hum of a thousand winged workers. 3. The best thing that we can get, so that it is not a "patent bee-gum." 4. Yes, lots of things yet uninvented could be used by the inventor if no one else. 5. Never mind the respectable part of the business, a patent wooden "nutmeg" is as liable to win "respect" as anything else. 6. Oh, don't!—G. W. DEMAREE.

1. Of an unexpected nature. 3. An automatic, triple-acting, self-binding swarmer. 3. ? 4. No. 5. No. Do you not read current apicultural literature? Intelligent bee-keepers make their own fixtures, largely. Manufacturers of supplies make goods to sell, and the great mass of those who use the goods know nothing of improvements in this line, except what they read in manufacturers' circulars and price-lists, and so, having no ability to judge of defects or improvements, they are well satisfied with what they got before. Besides, manufacturers dislike change, have pet inventions of their own, and are interested in keeping up the vicious prejudice against patents, so that it is all that one's life is worth to introduce the most obvious improvement is existing fixtures, if he seek any pecuniary recompense, as the history of these things during the last few years shows; indeed it is hard to introduce such an improvement as a gift, if one insist on having the honor of having made the invention. 6. ?—R. L. TAYLOR.

1. I give it up. 2. It seems to me that the most-needed invention is in connection with honey-extractors. So far as I know, we never had a half-way-decent honey-extractor; that is, one at all worthy of the use of a bee-keeper who produces tons of extracted honey. The best of our present machines are just good enough for amateur bee-keepers, who have from three to ten colonies of bees. 3. I presume so, but I do not know what, or I should get right to work on it. 4. Certainly not. 5. Certainly it is, but he would not be apt to get much reward unless he got a good, strong patent, and then enforced the law, which he would certainly do if he had any energy and intelligence. We have had ample evidence, in more cases than the Langstroth invention, that quite prominent

bee-keepers will prevaricate, and try to rob an honest inventor. Perhaps your aim in asking this question, Mr. Tefft, is what I have many times been sorry that I did not do—try to draw out of every bee-keeper possible, all he knew and conceived about certain lines of inventions connected with bee-keeping, and then it would be a little darker, after something had been brought out, for them to say, "Oh, I thought of that long before." 6. For 12 or 15 years I have made the breeding of bees for business, a special part of my work, as the readers of the AMERICAN BEE JOURNAL very well know, and my method has been not to aim at any particular color, "blood" or grade, but to breed direct for hardiness and honey-gathering qualities, and this is the simplest thing in the world. It is very easy to know what you want, and very easy to discover where it exists in your apiary, and just as easy to breed in that direction, without any power to fertilize queens in confinement. —JAS. HEDDON.

1. I do not know. 2. I do not know. 3. I do not think of anything just now, and I have tried *very* hard. 4. I hope not. 5. Yes, always. The inventor will probably never be paid for his troubles. An inventor, as a rule, never is paid. The public is even *cautioned* (by moulders of public opinion, in print and elsewhere, who could not otherwise be seen except to hoist themselves upon the structures reared by these inventors), to invest in new things sparingly. Personally, I have no complaint to make, but the inventor in "bee-fix-in's" meets very little encouragement in our modern literature, and, in some cases, opposition that is almost malicious. 6. "What experiment?" I should like to ask the querist what *first* experiment out of the many, many thousands of experiments yet to be made? This sets us loose in the field, where the vender of "traps and sticks" and the employer of child-labor will be obliged to seek the shade, along with the balance of us, and depend upon his own resources, at least, till he learns something. Ring the bell, Mr. T., and call the school to order.—J. M. SHUCK.

These questions are unanswerable. If any one *could* answer them, he could supply the want by inventing the article. Men may speculate, but inventions do not come in that way. They are usually "sprung" upon a wondering world, when it expects nothing of the kind. We have done all we can do to encourage invention, but while the Patent Office is run in the way it is now, there is little prospect for anyone to obtain a sufficient "remuneration" for inventions of any kind used by apiarists. The amount involved is so small.—THE EDITOR.

CORRESPONDENCE.

QUEEN-REARING.

Candy for Queen-Cages, Securing Queen-Cells, etc.

Written for the American Bee Journal
BY S. W. MORRISON, M. D.

A great many leading queen-breeders have at various times written to me, asking how I made the food that I used in my queen-cages. I have had good reason to decline to give it, but I now feel free to do it.

It requires a candy expert to make it, and is made simply of apple-blossom honey (any other good honey will do as well) and confectioner's "A" sugar, boiled together, and kneaded while hot. I furnish the honey, and ask the confectioner to make me "cream candy," using *no glucose* or water; the result is a candy which will never get dry, and will keep in a dry room in a close tin vessel for years.

If the confectioner should get it too thick, a little more honey can be worked into it; if too thin, a little pulverized sugar can be added.

I provision my queen-cages with this candy, send them to Austria, and have queens sent to me from there. Another secret of my success in mailing queens is, that I never neglect to pour into the space intended for food, melted wax or paraffine, and, thus prepared, the candy can remain in the cages for a year, and used successfully.

Securing Queen-Cells.

Mr. Alley's method of queen-rearing is a grand success. I can readily get from fifty to seventy queen-cells every time, by only following his directions. His method can be applied, and as many fine queen-cells obtained from a colony that is just made queenless. Take a frame of empty comb, insert a knife at one end of the comb, about 3 inches from the bottom, draw it towards the other side of the comb in a circular line, striking the middle of the comb about 1½ inches from the bottom, and coming out on the other side of the comb 3 inches from the bottom; now have a very sharp, thin-bladed knife, a little wax just melted, and a tin cup of hot water, all handy in a room warmed to about 100°.

Secure a comb of eggs from the selected queen; cut a sufficient amount of it up into strips of one row of cells, cross-cut these strips into two-cell pieces; dip each piece into the melted wax and quickly fasten to one edge of the cut comb, which stands inverted convenient to the melted wax. These little pieces of comb should be about ½ inch apart, and project slightly outward. Another row can be placed on the other side of the comb projecting slightly outward.

Give at once to a colony from which the queen is just removed, and they scarcely ever fail to give a good queen-cell for every egg that is thus given them in good condition.

If the comb containing the eggs is old and tough, it is well to pair down with a sharp knife these rows of cells, taking off about one-third. I would prefer the old, tough comb because it is more easily handled.

After three or four days it can be removed to the upper story of a colony, with a queen-excluding honey-board, to be finished, and another frame of eggs given; and when it is ready for removal, other cells will be found in the colony, which can be removed, and the process repeated. I have never by any other method secured finer queens, nor half the number.

Oxford, Pa.

COMBS.

Preserving and Caring for the Empty Combs till Needed.

Written for the American Bee Journal
R. F. HOLTERMANN.

There are doubtless very many like myself, who have had great difficulty, and even suffered loss from moth in wax-comb. By this I do not mean that the moth destroys the comb upon which the bees are in the hive, for whenever any one makes the assertion that "my bees have been destroyed by the miller," I come to the conclusion that ninety-nine times out of one hundred, yes oftener, the bees did not perish through the work of the "miller," or they were black bees. For this reason, and for many others, I should condemn anything but a sprinkling of "black blood" in the apiary of the inexperienced bee-keeper, and probably even that.

To what I desire to make special reference in preserving comb, is to comb used for extracting, or comb not occupied by the bees—these have to be guarded against moth.

I never have any objections to leaving supers with comb upon the hive until I wish to prepare my bees for winter. The bees will draw from them, if uncapped, any honey that they may require for immediate use, and, if room, even for winter, and I prefer this method to suplying it to them through artificial feeders. Here, too, the honey is ripened and kept from granulating—something of no small importance.

If for any reason one has combs otherwise, then I find, if free from honey, the best place is a cool, dark room; a cellar partially underground is very good—of course it will not do to have honey in the combs, as it will absorb moisture and sour.

I have found it no easy matter to keep moths out of combs in a warm room, with fresh pollen in the combs. Brimstone is all right enough, but when our time is fully occupied, the first thing we know, the combs will be destroyed. The ease of doing the work looks nice on paper, and also looks well to say, "If you have not time to attend to combs, don't keep bees;" but the fact remains that many do keep them who often are so busy that they forget such a matter.

If well fitting, moths can be kept pretty well out of supers, by putting one on top of another, with a layer of paper between each — the entrances should be stopped up, of course.

I thought perhaps a few hints upon the subject might be of value to beginners. Many are in a position to so place their combs.

Romney, Canada.

SUNDAY.

Do Bees Swarm more then than any Other Day?

Written for the Prairie Farmer

BY MRS. L. HARRISON.

Many persons think that bees swarm more on Sunday than any other day. I do not think that they do, but we notice it more. It is a day of rest, and after hiving all the week, bee-keepers would like to enjoy a rest. Last Sunday I felt that swarming was about over, and that I could enjoy a day of rest, and lie down upon a lounge, with some choice reading-matter, when that familiar cry, "Bees swarming," sounded upon my ear. "Where are they from?" "Don't know; they are clustering in the peach tree."

I tied on my bee-hat, with a resolve to find out where they came from, even if I had to look at every colony in the apiary. This can be definitely ascertained, by the young bees in the grass, that are trailing after them. I soon saw that they had come from a hive where the bees had been clustered out. This colony had swarmed about nine days before, and I had caught the queen, caged her, and left her on top of a hive; it was a very hot day, and although it was but a few moments before I returned, I found her dead, and no mistake about it. I know that no bees had stung her, and what killed her I do not know, unless it was the heat. The top of the hive where I placed her, covered with a wire-gauze cage, was painted white.

The bees, missing their queen, returned to their hive and clustered on the outside, and remained there, waiting for the young queen, when they would swarm again. I do not take much stock in such sulking and idleness, and resolved to return them when they swarmed. They had plenty of room, and why not go to work? I let them hang clustered, while I took off their case of nearly-empty sections, and lifted out the combs. There was very little brood, and what there was, was sealed, and not a large amount of honey. I saw where two queens had left their cells, and there were a number of small ones on the face of the comb; these I removed, extracted the honey, and replaced the combs.

When I removed the combs, the remaining bees clustered on the outside of the hive. There were not more than two quarts of them, and it would have been poor economy to let them have the use of hive and combs, as it would have been all that they could possibly do to get strong enough to endure the cold of another winter, without laying up any surplus. The swarm was a very large one, and when I had brought part of them back, securing the queen, the rest soon followed. I knew there were two queens, and supposed one would be destroyed.

I noticed this morning that, apparently, the bees that remained in the hive were clustered on the outside, hanging in a cluster to the projecting edge of the cover. I lighted a smoker, and taking a long-handled spoon, slowly dipped them off, and placing them in front of the entrance, watched them carefully as they marched into the hive. I soon saw a queen, which I picked up and gave to a queenless colony. These bees were devoted to their queen, and if she had not been removed, might have taken wing. When she was removed, the bees united with the swarm, and all was lovely.

Queenless Colonies.

I never remember of finding so many swarms that had filled their hives with comb and honey, and yet did not contain one cell of brood, which was proof that they were queenless. I have supplied a number of such, by letting virgins run in at the top, or down through the sections as soon as they left the cell. They are well received; the bees seeing the young, downy things, appear to take no notice of them. If they are a few hours old, it makes a difference.

When I have had second swarms issue, I take out the combs and carefully remove all queen-cells, preparatory to returning the swarm. Many times the queens come out while I am doing it, as the guards are disturbed. As fast as I can, I drop them into other colonies where they are needed, being careful to disturb the bees as little as possible. Those cells containing queens I place between combs, where they can come out at their leisure.

Peoria, Ill.

EXCLUDERS.

Making Wire-Cloth Excluders for Queen-Rearing.

Written for the American Bee Journal

BY DR. G. L. TINKER.

Many bee-keepers are desirous of rearing queens over full colonies, while there is a laying queen in the brood-chamber. I have now found a plan by which this can be done, viz.:

Take any strong colony and place on a zinc-excluder, then the "Queen-Rearing Chamber;" put in combs of brood from other colonies and introduce queen-cells about to hatch. Two days after lift off the chamber, leaving the cover on, and take away the zinc-excluder, and put in its place a wire-cloth excluder. Put on the queen-chamber, take out the corks, and the the young queens will duly become fertilized.

Lest the queen coming out in front over the entrance, should find her way into the brood-chamber with the flying bees, and destroy the laying queen, I put over the entrance a zinc-excluder: this obviates all danger of the reigning queen.

The wire-cloth excluder is made as follows:

Take a frame of the same size, and simular to the framing of the wood-zinc honey-board; put in a cross-piece, and then tack on one side a sheet of wire-cloth, 12 meshes to the inch—the common painted article. Nail in between the cross-piece and the frame, narrow strips of wood, to come up against the partitions in the queen-chamber, so as to close each of the apartments from below to the bees. Thus the heat of the colony will pass up, and aid in protecting the brood above, and keep the bees in the queen-chamber of the same scent as the colony below, so that they may be re-united at any time. This arrangement may also be used over any colony working in the sections.

My present belief is, that this is the easiest and cheapest method that we shall get to rear and secure the fertilization of queens.

New Philadelphia, Ohio.

EXPERIMENTS

In Getting Young Queens mated Above the Zinc.

Written for the American Bee Journal

BY E. L. PRATT.

I have been experimenting considerable this season, on getting queen-cells, and young queens mated behind and above queen-excluding metal. I have found that Mr. Doolittle was a little bit hasty, or much mistaken about getting queens mated as he decribes in his book, do everything you will with the young queen until she takes it into her head to fly out to mate. This is where the plan has failed with me every time. Out of the many times that I have tried it, in various ways and under different circumstances, she has been balled. I cannot account for it in any way. Why the bees will tolerate a second queen in the same hive for several days, and then ball her, is a question with me. If the queen in the other part of the hive is failing, balling does not happen.

If a hive is divided into two parts, and a cell put into each, both will hatch, and the queens will mate all right; but if they are left in the same hive any length of time, one of them is sure to be balled. The only way that I have been able to get a queen in each section, is through a cell. Strange virgin queens will not be accepted. I have picked off the combs in one side of a hive, divided in this way, eight young queens about two hours old. They were unharmed by the bees, or by each other. They did not seem to notice one another at all.

In a private letter from Dr. Tinker, he says that he has no trouble in getting queens mated from his "chambers," which are arranged with double metal, and a frame of comb between, in such a manner that the queens cannot peep through the perforations at each other.

The plan of securing cells over a zinc honey-board is an easy and inexpensive one, but the serious defect with it is, the young larvæ are neglected, to a certain extent, and poor queens the result. One day I "pinched" about thirty queens from these cells, on account of their small size.

The zinc is valuable for preserving cells from flying queens. One time I had given a queenless colony forty-five fine, large cells, many of them natural, to care for until they were cut. When I went to them, a few days later, I found that a virgin had got in, and was having great sport tearing down my "dollar bills." Since then I keep all cells where flying queens can not enter.

The new Alley plan has been successful with me, as far as I have tried it, as given in his pamphlet. It requires constant attention or swarming will result. By combining the two methods I found that this *constant* watching was done away with, and swarming was impossible. On the second day, just before sundown, transfer all cells from the building colony to an upper story of a strong colony, over zinc, and have them completed there. The great risk is in waiting until the third day.

The crowding-out method of securing cells is good, but the draw-back is incessant swarming. The plan that suits *me* best, is a combination of the Doolittle and Alley plans, with a little Tinker and Pratt mixed in. It is simple, not very expensive, and effectual. The queens are well developed and strong. When I put one of the cells (secured by this method) into a nucleus, I can go to them in ten or twelve days, and take out a fine laying queen, invariably.

Securing Healthy Queen-Cells.

The method which I employ for securing healthy queen-cells in abundance, is as follows:

The colony chosen should be of good strength, and prepared after the Doolittle method of taking away the queen, and feeding for three days.

I use the Alley plan for preparing the larvæ; but, instead of attaching the strips to an old comb, I use a bottom-bar that will just fit between the end bars of my frames, to which the strips are attached.

A piece of foundation about three inches wide is fixed to the top-bar of an empty frame, and this prepared bottom-bar is put just below the foundation.

If the colony is very strong, give it an extra empty frame with a small piece of drone-comb starter: this will keep the bees from building drone-comb on the cells, to bother one when cutting them out.

Date the bar and insert the frame between two combs of pollen and honey. *Feed all the while.* On the third day, remove the frame and cells to a full colony, separated by queen-excluding metal. Give to the rearing colony the queen on the frame of brood from the next most populous colony. In three days' time the colony from which the queen was taken will be ready to rear a batch of cells, when the balance of the brood can go to the colony that just finished theirs.

In this way, two colonies with one prolific queen will give from twelve to fourteen cells every six days, and no colony need to be queenless for more than six days. If the finishing and capping of the cells is done in the super over the queen-excluding honey-board, one day can be saved on each batch of cells.

To cut out the cells, remove the bar to which they are attached, or nursery-cages can be slipped over each cell, and the frame left on the super until the cells or virgin queens are needed.

If the cells are finished by another colony over the excluding metal, the super should be well stocked with hatching brood, and the prepared frame should be placed between two frames of brood in the larval state. This is to insure abundance of food to the young queens.

Marlboro, Mass.

GRANULATION.

How Can Extracted Honey be Kept in Liquid Form?

Written for the American Bee Journal

BY GEO. P. HOWELL.

Can any of the readers of the AMERICAN BEE JOURNAL give me some light on the question of keeping extracted honey from granulating in cold weather? or if not keeping it from granulating, at least delay it?

Last winter, although very mild, I was so much troubled with my honey in glass jars, candying, that I gave up selling it at a time when my sales would have been very good. I had to take back the honey so often, put it through the process, that is, putting the pans in hot water, renewing lables, etc., that there was not much money coming to me.

I am aware that granulated honey is sold in the North in great quantity, and that most prefer it in that condition; but down South they do not want it that way, and one can not talk them into buying it.

The moment a jar shows white, its fate is sealed, and it is destined to remain on the shelf until taken back.

Last winter, a dealer, so much annoyed by all sorts of questions asked, and by the assurances of knowing ones, that "that white stuff" was not pure, etc., so disgusted him, that no talk on my part, or evidence offered to prove the purity of the goods, and even better terms could move him. His answer was, "I would not handle that honey, if you gave it to me." Why, it takes all of my time trying to convince the people that it is pure—a thing they do not want to believe.

If the producer could have a talk with every consumer, at every store, he might make this matter clear, although I know from expierence that his task will be anything but sweet.

Some may ask, "Why use glass jars?" I do so because they come to me cheaper than tin pails, are a neater package, etc.

I do not wish to adulterate the honey, but it seems to me that some harmless substance could be worked up in the honey, that would stop or delay its granulation. I make a little living by producing and selling honey, but I cannot do anything in winter, hampered as I have been.

P. S.—I forgot to state that all my jars had on the back, a notice lable. such as dealers keep in stock, in regard to granulation.

New Orleans, La.

[We do not know of anything which will make honey remain liquid, without at the same time adulterating it.—ED.]

OUT-APIARIES.

The Management of Several Apiaries at One Time.

Written for the American Bee Journal

BY JAMES HEDDON.

I have been interested in reading Dr. Miller's series of articles on "Out-Apiaries," in *Gleanings*. While perusing them, I have noticed how very different are many of the conditions in different localities. I am the more induced to say something upon this subject, by reading the controversy between Messrs. Dadant and Hutchinson, which makes a very good text for this article; the more so because Mr. Dadant mentions the number of colonies which his man can manage, and quotes himself as saying that *I* want "a good man in each apiary."

From what I have read from the pens of Western apiarists, and what I have seen while visiting them, and from what I know about honey-production, I can very readily account for the great difference of opinion between such thoroughly honest and practical men.

I remember once having a lively discussion with Mr. E. J. Oatman, of Dundee, Ills., on the question of working several apiaries; namely, whether it were best to have a good man in each apiary, with a number of colonies equal to his time and skill, or whether it were better to keep a less number of colonies in a larger number of apiaries, and have one or two parties to do the work by driving from one to the other. I took the former ground, while Mr. Oatman took the latter. He tried it his way.

A few years later he visited me, when the same subject came up, and he said that he had changed his mind after trying it, and that he should thereafter have a good man in each apiary, with bees enough with each apiarist to be worthy of his hire. But further, my locality more readily demands that closer-attention system than does Mr. Oatman's at Dundee; and no doubt his is more like ours in that respect, than is that of Mr. Dadant's.

Then, again, Messrs. Dadant & Son produce extracted honey exclusively, while Mr. Oatman produces comb honey, and in this locality we get both in the same apiary, sometimes running more to one, and sometimes to the other, according to circumstances.

Although I have never tried it, I have often thought, and now believe, that with my new hive (with its divisible brood-chamber and plenty of those brood sections) I could very readily so manipulate an apiary run for extracted honey, that so very few swarms would issue that it might pay me better to work several apiaries on the drive-around plan, that to keep a man in each yard. I do not know, but I fully believe this. It seems very clear to me that all this wide difference of opinion between two honest bee-keepers, has grown out of a hasty blindness, or not understanding the circumstances and conditions of each other.

The early honey crop here, namely, clover and basswood, is almost a total failure. The fall harvest promised fairly, but the cold nights of the fore-part of August hurt that, and what the outcome will be, it is too early to say, yet.

Dowagiac, Mich., Aug. 10, 1889.

PRICE OF HONEY.

Honey Market Ruined by Short-Sighted Bee-Keepers.

Written for the American Bee Journal

BY A. J. DUNCAN.

I am glad to notice in the AMERICAN BEE JOURNAL that there is quite a revival in the "Bee-keepers' Union," since the successful termination of the Arkadelphia lawsuit. That is well. Nearly everything now is run by combinations and trusts; we have sugar-trusts, salt-trusts, and, more recently, an ice-trust—in short, every industry is run by trusts, and I sometimes fear that some enterprising individuals will get up a trust on the water that we drink, or the air that we breathe. Why, then, should not the bee-keepers combine for protection?

But the greatest protection that bee-keepers need in *this* section of country, is to be protected from the bee-keepers. That may look paradoxical, but nevertheless it is true. The last two or three years, as every bee-keeper knows, were very poor years for honey; what little surplus we had, we sold readily, but at rather a low price, for people here will not pay a high price for honey, for they consider it more of a luxury than a necessity.

This season so far has been a little over an average for the production of honey. I was working hard and selling my neighbors some very nice extracted honey at 10 cents per pound, and congratulating myself that this year I would make up some of my losses for the previous poor years. But alas! I went to our county-seat (Indianola) on Aug. 3, on business, and, to my surprise, I found the town full and running over with honey, both comb and extracted, and it was not brought there by the "small fry" that generally spoils our honey market, but large producers had brought it in by the barrel, and fine extracted linden honey was retailing at 6¼ cents per lb; one-pound sections at 8 cts.—and even these same individuals pay 10 cents per pound for the commonest kind of coffee C sugar!

I came home feeling thoroughly discouraged, and utterly disgusted, and feel like giving the worst enemy I have my bees, and quitting the business. One thing is sure—if I cannot get better price than the foregoing, I will have a good start for a crop of honey next year, for I won't sell!

Hartford, Iowa, Aug. 6, 1889.

HONEY.

Encouraging the Production of Our Own Sweets.

Written for the American Bee Journal

BY SIDNEY S. SLEEPER.

Having been interested in apiculture for the past thirty years, I have been called on occasionally to give an essay on the subject at our State and county institutes. I had occasion to attend the Cattaraugus county institute, held on July, 2, 1889. In doing so I had to pass through Wyoming county, the home of Mr. E. D. Keeney, a professional druggist and apiculturist, and so concluded to call on him, having seen him but once before, and that was at the first meeting of our Erie County Bee-Keepers' Society, held on June 15, 1889. He then became a member.

When calling, I asked him to explain how he obtained such a large yield of honey, as I had heard reported from his apiary. He could not do so without showing the quality of the bees

that gathered it. We went to his apiary, and he there showed me the finest and most beautiful queens, drones and workers that I ever saw. I was not long there before I tried to persuade him to make an exhibit of his fine stock at the International Fair, to be held in Buffalo, commencing on September 3, and continuing ten days.

I now have a letter just received from Mr. Keeney, saying that he will make an exhibit of queens, drones and full colonies of his bees, at the Buffalo Fair; and he will give his experience in judicious breeding at our next society meeting, which is to be held in Buffalo, on September 5, during the fair. I consider his exhibit and experience of great value to our pursuit.

It is my object to induce more people to keep bees, for the reason that we have only 300,000 bee-keepers in the United States, and only an average of 10 colonies each. They produce annually about 120,000,000 pounds of honey, and at the same time we import 2,400,000,000 pounds of sugar, at a cost of about $75,000,000. Not more than ten per cent. of those favorably situated for the cultivation of bees, are engaged in the pursuit. If they were so engaged, the annual product of honey would not fall below $150,000,000, for honey alone.

Instead of being importers we would be exporters of sweets, with a balance largely in our favor. A large percentage of these imports do not bring with them a character above suspicion. Instead of paying our money for the vile adulterations of foreign importations, our apiculturists should gather the pure and wholesome nectar annually wasted in their own fields.

I do not think that there is any fear of over-production, for consumption generally keeps pace with production. It cannot be expected that we will have a full crop of honey in all parts of of our vast domain every season.

To induce more people to engage in the pursuit of apiculture, our queen-breeders should breed for docility, so that even the timid may handle bees with impunity.

I hope that all who can, will attend our great Fair. Mr. O. L. Hershiser, of Big Tree Corners, N. Y., is the superintendent of the honey and apiary department, and also Corresponding Secretary of the Erie County Bee-Keepers' Society, and will gladly answer all communications.

Holland, N. Y.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Aug. 31.—Haldimand, at Fisherville, Ont.
E. C. Campbell, Sec., Cayuga, Ont.

Sept. —.—Maine, at Livermore Falls, Me.
J. F. Fuller, Sec., Oxford, Me.

Sept. 3.—Iowa State, at DesMoines, Iowa.
J. W. More, Sec., DesMoines, Iowa.

Sept. 5.—Erie County, at Buffalo, N. Y.
O. L. Hershiser, Cor. Sec., Big Tree Corner, N. Y.

Sept. 14.—Susquehanna Co., at New Milford, Pa.
H. M. Sceley, Sec., Harford, Pa.

Oct. 16—18.—Northwestern, at Chicago, Ills.
W. Z. Hutchinson, Sec., Flint, Mich.

Dec. 4-6.—International, at Brantford, Ont., Canada.
R. F. Holtermann, Sec., Romney, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER-BOX

Heart's-Ease Bloom, etc.—Mr. Frank S. Johnson, Campbell, Nebr., on Aug. 10, 1889, writes:

I took a long drive over the country yesterday, and the stubble-fields are one mass of pink bloom, of the heart's-ease, or heart-weed. The bees are working finely, making very white, delicate comb, and storing a very mild amber honey. My Carniolan queen is doing finely, and has her hive well filled with white-banded bees. Judging from the descriptions of the Carniolans, I should say that she was a pure one. The golden-rod is blooming every where. I think it is rather earlier than usual. I believe that there will be a great yield of honey in this State.

Puff-Ball Smoke—Uniting Colonies.—Samuel Flory, South English, Iowa, writes:

Probably many are not aware of the effect that smoke from puff-balls has upon bees—(I say puff-balls, for I know no other name.) It grows on damp places, a little like mush-room; when dry it is like dust inside. I gather them, get them thoroughly dry, put them into the bee-smoker, mix a little dry, decayed wood with it, so that it will hold fire better, then blow the smoke into the entrance of the hive until the bees become stupid and drop down, which will not take long, probably five minutes, or a little over. In order that I may be fully understood, I will give my method of proceeding: Wishing to unite colonies No. 1 and No. 2, and wanting to save the queen of No. 2, I smoke those in No. 1 first; after smoking, as above stated, I uncover the hive, lift out the combs, and brush off the bees that may hang to the combs; this done, I pour the bees on a cloth (a board will answer), then hunt the queen, which is easily found, and destroy her. Then go to colony No. 2, smoke it the same way, until stupefied, remove the hive-cap and honey-board, pour the bees from No. 1 on top of the frames, cover it up, and the work is done. By the time the bees revive, they will be all mixed up so that there will be little or no fighting, and but very few bees will return to their former place. I have practiced this for several years, and it has always "worked like a charm" for me, and has never caused any bad effect whatever.

One-Third of a Crop.—Matthew Rebholz, Kane, Ky., on Aug. 10, 1889, says:

The season opened with the finest prospects for a full crop of honey; white clover was plenty, but June came and our hopes were blasted, for the first week in June it was very cold, the second week it rained all the time, and the remainder of the month was entirely too wet. One of my neighbors, who started in the spring with 10 colonies, did not get over 100 pounds of honey. I got about 40 pounds of honey to the colony. Take the whole country over, there is not more than about one third of a crop; but we will not despair.

Little Colony in a Small Hive.—Edward Clark, Nat, Ala., on August 5, 1869, writes:

On June 22 I found about a pint of bees clustered on a bush in the woods, near where there had been a bee-tree cut. I put them into a little hive containing three frames, which were about six inches each way, the center one being filled with comb containing eggs; one outside frame filled with comb was about full of uncapped honey, and the other frame had a small piece of empty comb in it. In about a week I examined them, and found a queen-cell with an egg in it. In about a week more I examined them again, and found that the egg had hatched into a worm. I then thought I would soon have a nice little colony of bees; but the next time I examined them, about a week later, they had torn down the queen-cell and enlarged four or five other cells to a little larger than drone-cells, and put all the eggs into them, except about half a dozen, which they had carried to another comb. The next time that I examined them, they were all dead. I am a little boy, only ten years old, and know nothing about bees except what I have learned this year, and would be glad to learn through the AMERICAN BEE JOURNAL.

why they tore down the queen-cell, and then enlarged other cells, and put all the eggs into them. So far this has been a very poor season here for honey. Bees have swarmed but little, and have hardly gathered enough honey to live on.

Mr. G. M. Doolittle replies to the above in this way:

The above is evidently a case of laying workers. The writer says he gave the bees a comb having eggs, and after a week had elapsed an examination showed "a queen-cell with an egg in it." Now all the eggs that he gave the little colony at first, would have been hatched at the end of the third day, hence if there was an egg in a queen-cell, something in the hive must have put it there, or the bees must have stolen it in order to have found it there one week after he gave the eggs. That the bees did not steal it, is proven by finding more eggs the next time he looked; and that the something which put it in the queen-cell was not a queen, is proven by the fact that queens never deposit eggs in queen-cells under such circumstances. The second examination proves conclusively to my mind that there were laying workers present, inasmuch as there were now eggs in two combs, and the fact that they tore down the first queen-cell; for bees seldom bring a queen-cell to completion, where the product which it contains comes from an egg from a laying worker. Wherein our young friend makes a mistake, is in supposing that the eggs which he saw each time were the ones that he put into the hive on the start. The only puzzling question there is about the matter to me, is, why the bees did not try to rear a queen from the eggs first given. This may be accounted for by the laying workers being long present with the bees, in which case bees rarely ever start queen-cells from brood thus given. This is also proven by the bees all being dead at the last examination, showing that they died of old age.—G.M.Doolittle.

Tobacco and Bees.—L. T. Hill, Canton, Dak., on Aug. 11, 1889, writes:

Will tobacco kill bees? On July 4 I had a swarm of bees to come out and cluster. I took a new Langstroth hive, and, as usual, prepared some salt and water to wash the frames with. Not seeing a piece of cloth handy, I took a sack that had contained smoking tobacco; I turned it in-side-out, shook it, and brushed it until I was sure that there was no tobacco on it, and used it to wash the frames and side of the hive. I put the bees into the hive at 11:30 a.m., and at 3 p.m. they were there, but at sunset they were not there—they had left. In course of a few days, I had another swarm come out; I put them into the same hive, after washing it with salt and water, but with another dish and clean rag. The third day after, the bees came out, flew around a few moments, and went back; and about ¾ of them went into the same hive, and the other ¼ into the next hive to them. Three or four days later I saw no signs of life around the hive, and upon opening it, I found the bottom-board covered about two inches deep with dead bees, and not a live bee in the hive. What killed the bees?

[We have never used tobacco-smoke on bees. Will some one please answer the above question?—Ed.]

Only a Moderate Yield.—E. M. Showers, Pine Bluff, Wis., on Aug. 12, 1889, writes:

The honey harvest seems to be over for this season. It has not been very good. There was a good deal of white clover and much Alsike, but neither seemed to produce much honey. Bees quit storing honey on July 15. I never had my bees to swarm so much as this season, while the honey lasted; so I did not get a great deal of honey—only about 1,200 pounds from 22 colonies in the spring, and increased to 45 colonies; 600 pounds of comb and 600 of extracted, which I sell at 12½ cents per pound for the former, and 10 cents for the latter. Some, I see, are selling honey for 8 cents; I guess they do not take the Bee Journal, or they would know the price of honey better.

Honey Crop Almost a Failure.—D. F. Park, Athens, Pa., on Aug. 8, 1889, writes:

I am pleased to learn through the Bee Journal, that bee-keepers are getting a fair crop of honey in the West. Throughout northern Pensylvania and southern New York, the crop is almost an entire failure. My apiary of 80 colonies, has, to date, given me a total surplus of 40 pounds of inferior honey. The most expert bee-keepers of this vicinity have done no better. White and sweet clover have bloomed profusely, but constant rains and cool nights have prevented any flow of nectar. Golden-rod is abundant, but merely keeps up brood-rearing, and gives no surplus. Buckwheat is now coming into blossom, As this county (Bradford) is the banner county of the United States, for the amount of buckwheat raised, we might hope for something from it; but so far we have only the smell, but not the sight of honey.

Trembling or Nameless Bee-Disease.—Wm. Beall, Kimmell, Ind., on Aug. 12, 1889, writes:

I have 30 colonies of bees, and they are doing very well at present; Honey will not be plenty here. I had one colony that had some kind of disease; the bees would come out of the hive, and fall on the alighting-board, crawl around, and then fall on their backs, tremble, and some died. In twelve hours the rest were all right, and are all right now. I would like to know what ailed them. Please state in the Bee Journal. I cannot afford to do without the American Bee Journal; but there are some things in it that I cannot believe, and one is that the old queens come out with the swarms. They may sometimes. I have clipped the queen's wings, and have had swarms to come from the same hive. It may be that their wings grew out again. I have found several this year, that were young queens, and unable to fly.

[This "trembling disease" has been repeatedly commented upon, in the Bee Journal, and on page 541 of this issue, Mr. Alonzo Skinner gives his remedy for it.—Ed.]

A Good White Clover Honey-Flow.—Joseph Moser, Festina, Iowa, on Aug. 8, 1889, says:

We have had one of the heaviest flows of white clover honey that I ever saw. My bees averaged 90 pounds of white comb honey per colony, and I extracted 200 gallons from 13 colonies. The fall crop is to come yet; it promises to be a good one, as I usually get some surplus from red clover, which is very abundant here. My bees are storing honey now from the acorns, which were pierced by an insect, thus causing honey to run out. We have had a very dry time for the last four weeks, and the white clover is almost dried out, but we are getting a nice shower to-day.

Successful Bee-Keeping.—I. N. Arnold, Richmond, Iowa, on Aug. 14. 1889, writes:

I will now offer a report of my honey crop. I have been a reader of the Bee Journal for eleven years. I am a bee-keeper by trade. I helped my father-in-law, J. O. Todd, three years before I owned a colony of bees; I now have 100 colonies in fine condition. Mr. Todd and I, together, will get over 20,000 pounds of honey for the season. I used to be a telegraph operator, and

could not work at it on account of my health. I like the bee-business the best of any thing that I have followed. Since I began keeping bees, I have lost all but one colony (in the winter of 1884–85). I had 400 empty combs, 100 pounds of foundation, and lots of hives; but I did not quit in despair. I invested $40.00 in bees the next spring, and filled up my hives that season; and during the season of 1885 my bees cleared me $400 in cash, and left all of my bees not owing me a cent; but if I had not known what bees would do in a good season, I suppose that I would given up the bee-business in disgust.

The Nameless Bee-Disease.—Alonzo Skinner, Mesa City, Ariz., on Aug. 6, 1889, writes:

On reading Mr. Joshua Bull's article about the "Nameless Bee-Disease," on page 392, I felt somewhat impressed to give my views concerning the matter; and seeing the item on page 484, I thought, "why keep my light under a bushel?" Two years ago last April I had one colony that was affected just like Mr. Root describes on page 484, and I put about two table-spoonfuls of salt at the entrance; in a very short time all was right. Then came a query in the BEE JOURNAL, bearing on the same thing, in which all who answered it, confessed that they knew nothing about it. Then I received the *Apiculturist*, in which Mr. Alley set forth his plan of spraying the combs with salt and water, and stated that he had published his salt-and-water cure for years. Since that time I have had about twelve colonies affected, and I just lifted up the front end of the hive, and poured in about ½ pint of strong salt-and-water—not going to the trouble of doing anything else—and all was right in a short time.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
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Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

A Modern Bee-Farm and its Economic Management, by S. Simmins, of Rottingdean, Brighton, England, is the title of a new book of about 200 pages, printed on excellent paper, and nicely bound in cloth. Price $1.00. For sale at this office.

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Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

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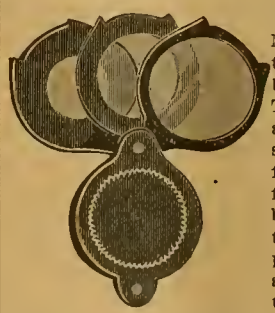

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Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

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Prang's National Flower is the title of a beautiful pamphlet which contains two colored plates of the two most popular candidates for selection as the National Flower of America. It also has two poems, and a postal card addressed to Messrs. L. Prang & Co., Boston, Mass., with a vote to be filled up for the selection of a National flower. The pamphlet costs 25 cents, and can be obtained at this office.

Honey and Beeswax Market.

PHILADELPHIA.

HONEY.—Prices are not fully established, being a little too early. Only a few shipments have yet arrived, which sold readily as follows: Best white, in 1-lb. sections, 16½c., and 2-lbs., 14c. Off grades generally 1 to 2 cts. less. Extracted, white clover, 8½c.; orange blossom, 7½@8c.; off grades, per gal., 60@70c

BEESWAX.—23½@24½c.

Aug. 15. WALKER & McCORD, 32 & 34 S. Water St.

DENVER.

HONEY.—We quote: New in 1-lb. sections arriving freely at 16@18c.; extracted, 6@8c.

BEESWAX.—18@20c.

Aug. 10. J. M. CLARK COM. CO., 1421 15th St.

CHICAGO.

HONEY.—New honey arriving freely, and all the shipments have been promptly closed out so far. We quote: 1-lb. white clover, according to style of package and appearance, 14@18c. Receipts of extracted increasing: demand light, at 6@8c.

BEESWAX.—25c.

Aug. 1. S. T. FISH & CO., 189 S. Water St.

NEW YORK.

HONEY.—New extracted sells as fast as it arrives. Orange blossom, 7½@7½c.; inferior Southern, 70@75 cts. per gallon. Some demand for the comb, but we have no stock yet.

July 22. F. G. STROHMEYER & CO., 122 Water St.

MILWAUKEE.

HONEY.—Old crop nearly gone, and new begins to appear, the quality being fine. We quote: New white 1-lbs., 15@16c. Extracted, white, in barrels and kegs, 7@8c.; in tin and pails, 7½@8½c.

BEESWAX.—23@28c.

July 16. A. V. BISHOP, 142 W. Water St.

KANSAS CITY.

HONEY.—Old crop all gone. New 1-pounds, 16c.; 2-lbs., 14c. No California comb in the market. Extracted, white, 9c.; amber, 7@8c.

Aug. 7. HAMBLIN & BEARSS, 514 Walnut St.

CHICAGO.

HONEY.—Coming in freely, but sales are not easily made at over 15c. for the best, while we are trying to get 16c., and think that later we can get it, as all buy sparingly now. Extracted sells at 6@8c., but chiefly at 7c. for white.

BEESWAX.—25c. R. A. BURNETT.

Aug. 12. 161 South Water St.

DETROIT.

HONEY.—New crop is coming in slowly, and sells at 14@15c. for comb. No desirable old stock left.

BEESWAX.—24@25c.

July 24. M. H. HUNT, Bell Branch, Mich.

KANSAS CITY.

HONEY.—New white comb in 1-lb. sections sells at 16@17c. White extracted, 7@7½c.; dark, in barrels, 6c. An active demand is not expected before Sept. 1. No new extracted in the market.

BEESWAX.—None in the market.

July 20. CLEMONS, CLOON & CO., cor 4th & Walnut.

ST. LOUIS.

HONEY.—Extracted, bright, 6½c; dark, 5½c. The market is slow.

BEESWAX.—Scarce at 23c. for prime.

July 20. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—We quote: Fancy white 1-pounds, unglassed, 16c.; off grade 1-lbs. 14c.; fancy white 2-lbs., glassed, 14c., and off grade 2-lbs., 12c. Extracted in good demand as follows: Orange blossom, 7¼@7¾c. White clover and basswood, 8@8½c. Off grades of Southern, per gallon, 60@70c.

HILDRETH BROS. & SEGELKEN,

Aug. 12. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote: Comb, 17@18c.; extracted, 8@9c. Sales a little slow on account of the warm weather. Quality of new honey is very good.

BEESWAX.—25c.

Aug. 9. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb., and comb honey, in 1 and 2 lb. sections, 12@15c., for which demand is good. Trade is also good in the extracted, in square glass jars for table use, and in barrels for manufacturers.

BEESWAX.—Damand is good—20@22c. per lb. for good to choice yellow, on arrival.

Aug. 9. C. F. MUTH & SON, Freeman & Central Av.

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WE are now offering our No. 1 V-Groove Sections in lots of 500, at $3 per 1,000; No. 2 Sections at $2 per 1,000. For prices on Foundation, Hives, Shipping-Crates, &c., &c., send for Price-List. Address,

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CHICAGO, ILL.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Aug. 31, 1889. No. 35.

EDITORIAL BUZZINGS.

Bill Nye on Bees.—Some time since, Mr. Edgar W. Nye, the humorist, wrote one of his peculiarly-funny articles on swarming. It appeared in the New York papers, but it was copyrighted. We wrote to the author for permission to place it before our readers, so that they might have a good laugh. He was then in Europe, but we have just received a letter from him with permission to print the article. We have had the engravings re-produced and present it to our readers in this issue. Bro. Heddon wrote us as follows concerning the article:

FRIEND NEWMAN: I have laughed heartily over the Bill Nye article on bees. He knows more *facts* about them than Agassiz did! No such a humorist ever graced the world before, it seems to me.—JAMES HEDDON.

Read it, and laugh and "grow fat," is good advice. Those who have any relish for humor will no doubt enjoy it, as we and many others have done. Several of our subscribers cut it out, and sent it to us, asking for its insertion in the next BEE JOURNAL, but we could not do so until the author gave permission. Now, here it is.

It has Often been Asked what would be included in the free list of animals imported into Canada for breeding purposes. We lately sent a request, through D. A. Jones & Co., to the Canadian Department of Agriculture for a definite classification of such, and here is the reply:

Pedigreed animals for the improvement of stock (viz: horses, cattle, sheep and swine) under special regulations of the Treasury Board, come in free, but other living animals imported, are liable to a duty of 20 per cent. I should understand the term "animals" to include "queen-bees," but this, however, is a question for the interpretation of the Customs.—Signed, J. LOWE, Ottawa, Ont.

I. R. Good, Nappanee, Ind., has sent us a sample of his new Combined Introducing and Shipping Cages. The Introducing Cage is made of bent wire-cloth, 1¼x3 inches and half-an-inch thick, with a wood-stopper in one end having three holes through it; these holes are filled with "Good" candy. When shipping, it is enclosed with a frame work of thin wood around the sides (with a hole in two sides for air), and a thin piece of wood on both sides. Mr. Good says:

I believe it to be one of the best and most successful Introducing Cages made. To introduce a queen, all you have to do is to lay the cage on top of the frames, under the cushion, or thrust it down between the combs, and the bees will eat the candy out and liberate the queen. How do you like it, Mr. Editor?

We like it very much. It is so simple, and will save much labor in introducing the queens.

Several more papers have been sent to us, which have published the item from the *Herald of Health*, about making artificial honey from oil of vitriol and potato starch. What stuff for a magazine to publish! It ought to be called the "Herald of Death" instead of the Herald of Health!

A Man who has not enough interest to subscribe for the BEE JOURNAL, requests us to write him all about how to manage bees, how to build a bee-house, with full particulars as to dimensions, etc.—as though we had nothing to do but to write a book for his benefit, and present it to him in manuscript. He little dreams that while we write this, there are 50 unanswered letters on our desk. We want to accommodate all, but have no time to write for anyone the details of what they can purchase in a pamphlet or book. We are too busy.

Who is the Handsomest Woman in New York? Frank Leslie's Weekly is trying to settle this question by printing every week a picture of one of the loveliest young ladies in New York society. This week a large picture of Miss Sallie Hargous is produced. She is certainly a beautiful woman. President Harrison's visit to Bar Harbor, the striking picture of a life-saver rescuing a child at the beach, glimpses of the operating room of the Western Union Building, and of scenes at the watermelon-dock, help to make up an unusually interesting paper.

The ILLUSTRATED HOME JOURNAL will be clubbed with the American Bee Journal and both mailed to any address in the United States and Canada, for one year, for **$1.75.** Or both JOURNALS for one year, and Dickens' Works (as described on page 560 of this Journal)—all for **$2.85.**

Mrs. J. N. Heater, of Columbus, Nebr., says: "The ILLUSTRATED HOME JOURNAL is just such a magazine as I have been wanting to take for a long time, and I appreciate it. I wish it success."

Statistics.—In answer to a set of five questions, sent out by the Editor of the *Gleanings*, to ascertain the real facts concerning the honey crop, reports were sent in from every State, which are summed up as follows:

On account of the cool wet weather in the early part of the season, which, according to the reports, seems to have pervaded almost all of the United States, the honey-crop is considerably less than it might have been. First, because this weather continued clear up, in a good many of the places, into the time of year when the main nectar-bearing flora was in bloom. Second, the bees were unable to breed up properly on account of the cool and rainy weather, and hence the actual working force of the bees was considerably lower than it should have been. But in spite of all this, the season has been decidedly better than last year, in most localities, although there are some exceptions.

Twenty States report a good season: namely, Alabama, Arkansas, Georgia, Illinois, Iowa, Kansas, Kentucky, Louisiana, Minnesota, Missouri, Nebraska, Nevada, New Jersey, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Wsconsin, Arizona.

The following States report a poor season generally: California, Connecticut, Florida, Indiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, New Hampshire, New York, Tennessee, Texas, Vermont, Virginia, West Virginia.

Michigan, though usually among the foremost, gives as unfavorable a report as any of the States enumerated.

It is interesting to note that a number of States report 200 per cent. as the average crop of honey received. W. P. W. Duke, of Alabama, and J. L. Clark, of Florida, report 200 per cent., while a large number of others give 175 per cent. as the average crop. Taking it all in all, we find that the average crop of honey secured in the respective localities, stands 75 per cent. The same average a year ago was only 50 per cent; so that, according to the reports, 50 per cent. more honey has been secured this year than last, although the general average is still down.

Perhaps we should remark that the report has probably been under-estimated rather than the reverse. The tendency of human nature, and especially when its hopes are set high, is to look down instead of up. Farmers, as well as bee-keepers, are much inclined to complain about the poor season, too much drouth, or too much wet, or something else that is not just exactly right.

Introducing Queens.—Mr. Wm. Beall, Kimmell, Indiana, asks us to state what is the best way to introduce queens. This would take more space than could be spared in this department, to give in detail. The best way to do (for Mr. B. is evidently a beginner), is to buy a good manual, and then he will have something to refer to at any moment, which will tell him *what*, *when* and *how* to do anything that is desired to be done in the apiary. There are so many ways, that we should hardly like to decide which method was the *best* one. Mr. Beall remarks thus about his honey crop:

The honey crop is light here, this year. It is only about half a crop. Is it healthy to feed bees? if so what way is the best to feed them?

Yes; if the bees are short of stores, feed them. Get a Shuck feeder and put at the entrance of the hive.

THE FLOWERS AND THE BEES.

BY E. H. R.

'Twas Spring. Each tendrilled vine, each shrub and tree,
Were clothed in tender green, the buds set free.
But some in discontent were prone to linger,
Till Beauty, in her flight among the trees,
Did pause and lightly pressed them with her finger.
Her fairy touch, distilling magic power,
Each lagging bud burst fourth a perfect flower.
The gladsome news went floating on the breeze
O'er hill and dale, and left the fields aflame
With blossoms. Then arose glad jubilees
Among the birds, and from the echoes came
The burden of repeated song. The bees
From dreams awoke; in wonder and delight
They murmered low and took a sudden flight.
Each year since then, when earth and skies are warmed
And floral fragrance fills the air, the bees have swarmed.

—*Inter-Ocean.*

GLEAMS OF NEWS.

Aggressive Work Needed.—J. C. Armstrong, Bromley, Iowa, on Aug. 8, 1887, says:

I think that the time has come when bee-keepers should be the aggressors, and commence suit against some of those who are asserting that honey is being manufactured, and compel them to bring on their proof or pay the penalty of their falsehoods. You ask where the money is to come from? The heavy shippers of honey are the ones to prosecute; for it is they who are injured by it. The small bee-keepers, who sell their product at home, are not affected by it.

The National Flower.—Mrs. L. Harrison, Peoria, Ills., on August 13, 1889, writes:

I lately attended a picnic given by the Scientific Society of Peoria County. I consider myself "part and parcel" of Agricultural, Horticultural and Scientific gatherings. I questioned some of the prominent botanists, with reference to their choice for a "national flower," among them Dr. Stewart, who, as authority on botany, has a national reputation. He said "that the Asters were indigenous to this country, and in no country in the world did they flourish as they do here; but that the Golden-Rod had much in its favor, by reason of its name." In interrogating a representative of the Scientific Society of Fulton county, who was present, he said that he could not see why we could not vote for a "national flower" without buying a book; and that puzzles me. I am in favor of the Golden-Rod, both heart and soul.

We do not know, but presume Mr. Prang thought that the most desirable way, at least for him, for we learn that he has sold many thousands of the books. The Golden-Rod is evidently away ahead in the race.

Asters and Bees.—W. Harmer, Manistee, Mich., on Aug. 12, says:

Please name the blossom which I mail to you. It grows in the woods here; I got it from a neighbor who said that she had quite a scramble to get it away from a bee, as it alighted on it after it was plucked. Of course she knew not the innocence and harmlessness of a busy bee in search of sweets a long way from its home. I do not know that it is plentiful, and as I did not gather any of it, I would like to know its value for bees, and on what kind of soil it would feel at home.

It is one of the numerous family of Asters, rich in honey, and thriving on almost any kind of soil.

The Richest Legacy that parents can leave to their children is not a matter of silver or gold, or bonds or real-estate. It is not a thing of cash but of constitution—not of good investments, but of good health.

The young man or woman that has inherited from his or her parents, a sound constitution and its concomitant of perfect health, has no earthly reason to complain of parental shortness in the matter of a legacy of dollars. They have received a capital which is far more valuable than money, or of anything that money can buy. They have received that which lawyers cannot melt away, or financial storms destroy. The superb pricelessness of this legacy should not be lost sight of, by parents or by those whom they have brought into this world of weaklings, of sick and suffering men and women whose burdens of ill-health are traceable to their ancestors. Let all care for such an important matter, so that the future generations may inherit this priceless legacy.—*Pittsburg Bulletin.*

Maj. W. C. Stevens, of Ann Arbor, Mich., formerly of the Ninth Michigan cavalry, still owns and uses the horse that he rode in the army. He bought him in Kentucky in 1862 and rode him in many battles.

Johannes Brahms has just completed a new work, "Deutsche Fest und Gedenkspruche," for double chorus a capella. The novelty is to be performed for the first time under Von Bulow's conductorship at the Hamburg musical festival in September.

The sale of the contents of the late M. Cabanel's studio has produced about $28,000 for paintings, sketches and drawings. His well known picture of "Cleopatra Experimenting with Poisons Upon Condemned Prisoners" fetched $4,000, and his "St. John the Baptist" $2,500.

ELECTRIC NOTES.

The phonograph has lately been employed abroad in diplomatic correspondence.

The formal opening of the Chicago Electric club took place in the new quarters recently.

Telegraph poles in India are made of iron, on account of the destruction of wooden ones by the white ants.

Professor Blake is experimenting with the view of perfecting a system of telephonic communication at sea.

Coal cutting machines run by electricity are now so far perfected that they can cut between 200 and 300 tons per day.

The Niagara Falls convention of electricians gives promise of a full attendance and an exceedingly interesting exhibit.

In 1868 the average charge per telegraphic message was $1.04, and the profit 41 cents. In 1888 the corresponding figures were 31 cents and 8 cents.

In Spain the native electric light companies have been so unsuccessful that the whole matter of lightning has been turned over to English companies.

SCIENTIFIC SQUIBS.

It is proposed in France to substitute death by electricity for the guillotine.

The maximum intensity of the light from the Eiffel tower is 500,000 carcels, giving a range of 127 miles.

It has recently been proposed to use an alloy of zinc and phosphorus in boilers to prevent incrustation and pitting.

After more than twenty-seven years the pearl oyster has produced pearls off the Madras coast in sufficient quantities to be worth the expense of fishing.

A steam carriage in which coke is used as fuel has lately appeared in France. The driving is effected by two hind wheels and the speed attained is about fifteen miles per hour, twenty-eight and three-quarter gallons of water being sufficient for a run of twenty-five miles.

Both the French and German governments have provided facilities for the examination and certification of electrical instruments, and it is now found that apparatus bearing the official indorsement brings a better price in Continental markets than non-attested instruments.—New York Times.

An authority upon provisions estimates that half a pound of butter a week is a good allowance for each person; half a pound of coffee a week and a pound and a quarter of sugar for each person make liberal allowances. Families are apt to differ in these respects.

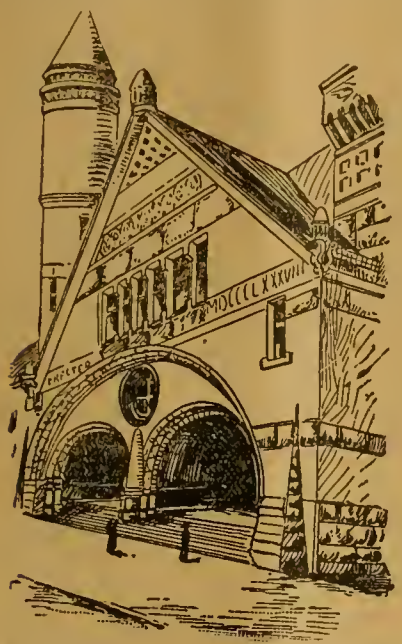
Smoke extends from California to western Kansas, a distance of 1,000 miles. At first the smoke partially shut off the rays of the sun, making the air cooler, but now it adds to the already high temperature. It is supposed to be caused by the mountain fires in Montana.

A very desirable corner of the earth is the Puyallup reservation, which the Puyallup Indians are ready to hand over to purchasers, in whole or in part. Some of the finest hop growing land in America is on this reservation. Washington territory is famous for its hops, which are quite as good as those of Kent.

PITTSBURG'S EXPOSITION.

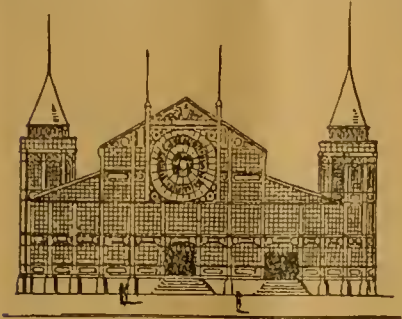
It Will Open Sept. 4 and Continue Until Oct. 19.

Pittsburg is going to hold an exposition, beginning Sept. 4 and closing Oct. 19, the object being, of course, to make the world acquainted with Pittsburg's resources. Since 1886 the era of improvement has been marked. Many who are interested in the material interests of the United States have been attracted to Pittsburg by the introduction of natural gas, and it is predicted that Pittsburg will eventually rank first in the manufacture of finished articles, as she now leads in the manufacture of iron, steel and glass.



EAST ENTRANCE, MAIN EXPOSITION BUILDING.

The importance of an industrial exposition was recognized four years ago, when the Western Pennsylvania Exposition society was incorporated. The object of the association was "to advance the industrial arts and sciences, and of agriculture and horticulture; also the establishment of a polytechnic school." The site chosen for the buildings is between Third street and "the Point," on Duquesne way, opposite the old Exposition buildings. Allegheny river bounds the northwestern, the city the southeastern side of the new buildings. The cost of the exposition building, the machinery hall and a smaller building to be used as a restaurant, will



MACHINERY HALL, PITTSBURG.

amount to $350,000. It is also intended to erect a music hall of magnificent proportions, and there is a possibility of the levee between the exposition grounds and the Sixth street bridge being turned into a public park and promenade; active steps have already been taken in that direction.

These They Cede and These They Keep.

The map here given shows the Sioux reservation, parts of which were recently ceded to the United States by the Indians. The 11,000,000 acres which will be thrown open to settlement, and for which the government is to pay $14,000,000, are shown in the shaded portion, and comprise about one-half of the entire reservation. This tract extends from Missouri to the Black Hills, and then north;

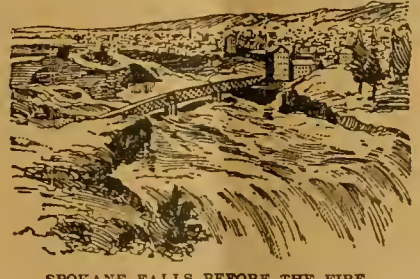
1. Proposed Standing Rock reservation. 2. Proposed Cheyenne River reservation. 3. Proposed Preshe Lower Brule reservation. 4. Proposed Crow Creek reservation. 5. Orallala Sioux reservation. 6. Proposed Pine Ridge reservation. 7. Proposed Rosebud reservation. 8. Military reservation.

SIOUX RESERVATION.

it embraces also a part of the fertile Winnebago-Crow Creek reservation on the east bank of the Missouri river, south of Pierre. The area of this great tract is equal to that of New Hampshire and Massachusetts combined. Two great railroads run into Pierre, which is opposite the centre line and but half a mile distant from the border. It is estimated that farms can be provided for not less than 70,000 families. Already the clans are gathering along the shores of the Missouri, and a rush equal to that which marked the opening of the Oklahoma lands is expected to begin as soon as President Harrison shall give the word.

It Will Rise from Its Ashes.

It is gratifying to know that Spokane Falls, the Washington city that suffered so severely from fire the other day, will shortly be re-



SPOKANE FALLS BEFORE THE FIRE.

built, and that in a more substantial manner than before. The cut of the city before the fire here given is from a photograph, and shows the beautiful falls from which the place takes its name.

PERSONAL GOSSIP.

Oscar Wilde, so it is reported, wears a flannel shirt embroidered with flowers.

Baldwin, the balloonist, has made $60,000 by his parachute descents in England.

The Duke of Fife is one of the incorporators of the British South African company.

The venerable Professor Sir Richard Owen has entered his 86th year in excellent health.

Owen K. Studebacker, the well known brewer of San Francisco, wants to be governor of California.

Mr. D. C. French, the sculptor, has completed his model for the Starr-King monument at San Francisco.

A 16-year-old boy, "Professor" Frankenstein, wields the baton at the concerts of the West Side park in Chicago.

Ferdinaud Guzman, the most famous bandit in Spain, is a dwarf, who at one time kept a small store in Granada.

Hon. Samuel S. Cox is said to be the only living man in public life who voted for the admission of Oregon as a state Feb. 14, 1859.

Thomas A. Edison rarely sleeps more than four hours a day. He says that when he sleeps eight hours he feels badly when he wakes up.

Senator J. P. Jones, of Nevada, and D. O. Mills, of New York, own gold mines in Alaska which are said to yield a net profit of $1,800 a day.

The leading tenor of today, Tamagno, is about 40 years of age, and originally assisted his father in the manufacture of mineral waters in Turin.

Ronald McDonald, son of the distinguished English writer, George McDonald, has been appointed head master of Ravenscroft school, at Asheville, N. C.

Gen. Gordon's cook has turned up alive at Assorean, having come into the English lines from the Mahdi's camp. He has blossomed into a doctor.

The Rev. Dr. Edward Everett Hale says that when he was a college student he and his chum took the first daguerreotype picture ever made in Boston.

Ivan Stepanoff, of Tobolsk, Siberia, was at one time governor of one of the Siberian provinces. He is about 5 feet 9 inches in height and weighs 150 pounds.

Ex-Congressman William L. Scott has acquired another large tract of coal lands, and is said to be the largest owner of this species of property in Western Pennsylvania.

Dr. Charles G. Eames, of New York city, owns an old stone house in Berkshire county, Mass., and close by it is the veritable blacksmith shop of Elihu Burritt, the linguist.

Governor Beaver, of Pennsylvania, determined when he assumed his present office to visit every county in the Keystone state. He has just completed his task by his visit to Pike county.

According to Mr. Ruskin's recent criticism, there is no genius about the English language. He defines the Welsh language as the language of music, the Scotch of poetry and the Irish of wit.

The pope recently gave Archbishop Corrigan, of New York city, two of his jubilee presents—a chalice and a ciborium—both of which are of gold, while the chalice is studded with amethysts and rubies.

EARN YOUR HONORS.

Of course you are proud that your fathers were good:
'Tis a pleasure to know they were great
In the field, on the bench, or in science or art,
Or as leaders in matters of State.

But we all should remember our ancestors' fame
Is not for their children to wear;
To the fame of the great man, the family name
Is the only legitimate heir.

The fame that is yours, is the fame you have won;
If you have not won it yet, look ahead—
But don't claim an honor because you're the son
Of ancestors centuries dead.

Of proud ones who live on the fame of their sires,
Examples in plenty are found:
Like the turnip and parsnip, they seem not to know
That the best of them lies under-ground.

Look ahead to the future—the past is not yours;
For your prize, trust the future alone.
The fame of the past is another's reward;
Make the yield of the present your own.

Inherited titles of honor are vain;
In the heat of Fame's handicap chase
The plain man looks forward: the noble looks back
And oftentimes loses the race.

Look forward! toil onward! and when in the end
Well-merited honors you've won,
Be proud that your claim to the prize did not lie
In being a somebody's son.—*Selected.*

QUERIES and REPLIES.

Italianizing an Apiary with Home-Reared Queens.

Written for the American Bee Journal

Query 651.—Give the best manner of Italianizing an apiary of hybrids, supposing the owner, of course, to rear his own queens or cells.—Michigan.

Buy "dollar queens."—MAHALA B. CHADDOCK.

Consult the standard works on our specialty, or the bee-papers.—A. B. MASON.

The space here is too small. Consult any of our standard bee-books.—J. M. HAMBAUGH.

Rear queens during the swarming season, and select the best in the fall, to supersede all doubtful ones.—MRS. L. HARRISON.

I know of no better plan that that given in my book. It is too long an answer for this department.—A. J. COOK.

I will let some of the queen-breeders answer this, as I know of no *easy* way.—C. H. DIBBERN.

Kill the black queens, and "introduce" the Italian queens. Or, you can use the queen-cell method; either one is good enough. For details, refer to your bee-book.—WILL M. BARNUM.

To answer this with any satisfaction, would require more space than we are allowed. Consult any good work on apiculture, and you will find what you want.—H. D. CUTTING.

The manner and process is fully explained in the bee-books. Send a dollar to the editor, and he will send you the book with the process.—J. P. H. BROWN.

I cannot see how you are going to Italianize, if you rear the queens in your own apiary. Fertilization in confinement is not a proven fact.—EUGENE SECOR.

I would suggest that the querist read bee-books, and back numbers of the bee-papers, for the information he seeks. A worthy answer would be too long for this department.—JAMES HEDDON.

Remove the old queens, and replace them with others of known purity. Get "Doolittle on Queen-Rearing," and "Alley's Handy-Book," which will give the "*modus operandi*" in full.—J. E. POND.

Procure a pure queen, and permit no queens in the apiary except daughters of a pure queen. Supersede those known to be mismated, by queens supposed, or known to be, purely mated. To work on this line, get the method of queen-rearing that suits you best. Several are published and all are good.—J. M. SHUCK.

This you will find fully explained in back numbers of the AMERICAN BEE JOURNAL, also in several books on apiculture. If every one of us here would give the manner, it would take more space than can be afforded in this department.—P. L. VIALLON.

When you have the queen-cells reared, (which should be after the honey harvest), just kill the reigning queen in each hive, and two days later give one of the cells.—G. M. DOOLITTLE.

Get Doolittle's book, and rear your queens; then kill the old queens, and introduce the Italians. If you do considerable increasing, you might leave the old queens and take pains to have the increase pure. You will probably have some hybrids, do the best you can.—C. C. MILLER.

First, put on drone-traps, take out the queens, and destroy the drone-brood. Nine days after, cut out all queen-cells — shaking the bees from each of the combs to make sure. *Then wait 12 hours*, and introduce Italian queen-cells. Remove the traps four days after the cells hatch, that the young queens may fly out. Pure Italian queens and no others within one or two miles should be allowed to fly.—G. L. TINKER.

The term "hybrid," as applied to bees, is a misnomer. There are no hybrid bees, and probably never will be. If I had an apiary of mixed bees, I would get a pure queen of the race which I desired, and rear queens from her, and let them mate with the drones of the apiary, as circumstances might determine; and then I would supersede all the queens whose progeny should not show the required characteristics.—M. MAHIN.

The best way, though perhaps not the cheapest, is to form some nuclei and rear queens, and introduce laying queens to all colonies that do not have purely-mated queens. When a hybrid colony casts a swarm, destroy all the queen-cells, and give them a mating queen-cell from the best colony. Keep straight on in this way, and if there is plenty of "black blood" in your vicinity, you will find it a life work to keep your apiary nominally pure.—G. W. DEMAREE.

Procure the production of queen-cells by an approved method to be due to hatch soon after swarming begins, and during the swarming season; then from each colony casting a swarm, and soon after the swarm issues, remove all queen-cells, and give a virgin queen or a ripe queen-cell. When swarming ceases (or before), destroy the old queens, as circumstances or convenience dictate, and introduce a young queen or a ripe queen-cell, as the bee-books explain.—R. L. TAYLOR.

You cannot, with any certainty, rear your own queens in an apiary of hybrids, and get pure Italians, no matter how careful you may be. The best is to purchase the queens of some reliable breeder, which are fertillized, and then you may soon have pure stock.—THE EDITOR.

Convention Notices.

☞ The Northwestern Bee-Keepers' Society will hold its annual convention at the Commercial Hotel, corner of Lake and Dearborn Sts., in Chicago, Ills., on Wednesday, Thursday and Friday, Oct. 16, 17 and 18, 1889. Arrangements have been made with the Hotel for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day for each person. This date occurs during the Exposition, when excursion rates on the railroads will be very low. There has been a fair crop of honey in the West, and an old-time crowd may be expected at this revival of the Northwestern from its "hibernation."

W. Z. HUTCHINSON, *Sec.*

☞ The fifth semi-annual meeting of the Susquehanna Bee-Keepers' Association will be held at New Milford, Pa., on Saturday, Sept. 14, 1889, at 10 a.m. There will be essays on different subjects, and also a question-box. Bring your wives along, and please invite your neighbors who are interested in bee-keeping, to come with you. If you have anything new, or that would be of interest in any way, of implements or fixtures, bring them, so that all may see them.

H. M. SEELEY, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec. Romney, Ont., Canada.

☞ The Iowa State Bee-Keepers' Association will meet at the State Fair Grounds during the State Fair week, commencing on Sept. 3, at DesMoines. The meetings will be held in our large Tent, and an invitation is given to all bee-keepers to meet with us, bringing their families and friends, and help to make our meeting one of interest to all bee-keepers.

MRS. O. F. JACKSON, *Pres.*

CORRESPONDENCE.

WEIGHING BEES.

The Exact Number of Bees in One Pound.

Written for the American Bee Journal

BY PROF. JOHN PHIN.

A great deal has been written about the "little black bee," the insinuation being that in size it is greatly inferior to the Italian. The so-called black bee was the bee of England and America until less than fifty years ago, and any English statistics that we may have prior to that time, undoubtedly refer to the black bee.

In writing the article *Bee* for my "Dictionary of Practical Apiculture," I wished to give as accurate *data* as possible in regard to the weight of certain numbers, etc., and I weighed several lots to determine this point. My determinations varied between 4,500 and 5,000 bees to the pound. I preferred, however, to give the series of determinations by Keys, who wrote nearly one hundred years ago, and who gives 4,640 bees to the pound. He also gives the number of drones, etc. See Dictionary, page 12.

I was led to give Keys as the authority, because 4,000 bees to the pound was the number adopted by dealers generally. It impressed me at that time, that if these dealers were correct, then the bee under cultivation by them (which is almost always the Italian), must be larger than the bee of 100 years ago, in the proportion of 4.5 to 4 (the inverse ratio of the number per pound). But not being quite satisfied as to the trustworthiness of the dealers' *data*, especially in view of my own experiments, I did not embody this inference in the article, or allude to it.

Now comes Mr. A. I. Root with a new and carefully-made determination, in which he gives 5,333 bees to the pound, instead of 4,000, as previously published by him; but he estimates that if the bees had very much honey in their sacs, the number might be reduced to 5,000 to the pound. If we accept these *data* as correct, it is evident that the bee has not increased in size during the last hundred years.

Keys tells us that the results of such weighings will never come out twice alike, owing to the difference in the fullness of the bees. Collin gives 5,000 bees to the pound, when in their normal condition, and 4,300 when filled with honey—a difference of 800 bees to the pound. Keys, no doubt, gave an average, and he has struck very nearly midway between the two determinations of Collin. An exact number would have been 4,700 instead of 4,640.

Numerous attempts have been made to increase the size of the bee, by increasing the size of the cell, and when foundation was brought forward, it was thought that this question had been solved; but the plan did not work. Neither does the bee seem to deteriorate in size by the gradual filling up of the cells with the cocoons of the young bees. However careless Nature may be of individual bees, and individual colonies, she seems to be wonderfully careful of her types.

Cedar Brae, N. Y.

BILL NYE.

The Humorist Studies the Habits of Bees,

AND WROTE THUS CONCERNING IT.

(*Copyrighted.*)

It is now the appropriate season for hiving bees. Bees should not be hived until they swarm. Bees begin to swarm as soon as the new queen takes the oath of office. The queen is a long-waisted bee who does the toil. The

Nye begins to get Restless.

honey-bee proper belongs the order Hymenoptera. All bees, according to Linnæus, who kept several stands of bees himself, are included in the genus Apis, but they are now divided into many genera.

I love to study the bee, and at one time kept bees myself. I kept several of them longer than I should have done. But honey-bees are full of interest to me. I often think of the language of a late writer who goes on to state "that within so small a body should be contained an apparatus for converting the various sweets which it collects, into one kind of nourishment for itself, another for the common brood, glue for its carpentry, wax for its cells, poison for its enemies, honey for its master, with a proboscis as long as the body itself, microscopic in several parts, telescopic in its mode of action, with a sting so exceedingly sharp that were it magnified by the same glass which makes a needle's point seem a quarter of an inch across, it would yet itself be invisible, and this, too, a hollow tube—that all these varied operations and contrivances should be included within half an inch of length and two grains of matter is surely enough to crush all thoughts of atheism and materialism."

I also compare sometimes the new colony just starting out to hustle for themselves with the Pilgrim Fathers—where are they?—who came to these wild, inhospitable shores, taking their long, tedious, uneventful voyage across the unknown ocean with no relaxation whatever except prayer.

Professor Jaeger, referring to the pronounced habits of industry born in the bee and frequently alluded to in school-books, says: "It is impossible for any reflecting person to look at a bee-hive in full operation without being astonished at the activity and surprising industry of its inhabitants. We see crowds constantly arriving from the woods, meadows, fields and gardens, laden with provisions and materials for future use, while others are continually flying off on similar collecting expeditions. Some are carrying out the dead, others are removing dirt and offal, while others are giving battle to any strangers who may dare to intrude. Suddenly a cloud appears and the bees hurry home, thronging the entrance by thousands, until all are gradually received within the inclosure. In the interior of the hive we see with what skill they work their combs and deposit their honey, and when their labor is over for the day they rest in chains suspended from the ceiling of their habitation, one bee clinging by its fore feet to the hind feet of the one above it until it seems impossible that the upper one can be strong enough to support the weight of so many hundreds."

The queen, during the propagating season, lays as high as two thousand eggs in a day, and I have given much thought to the grafting of the queen-bee upon the Plymouth Rock hen, with a view to better egg facilities, but so far to meet with little success. My experiments have been somewhat delayed by the loss of time in taking the swelling out of myself after each perusal of the bee character in his or her home life. The queen lives much longer

than any other class of inhabitants, and hangs on to the throne, as the historian Motley says, like a pup to a root. She has a stinger, but does not use it on boys. She uses it simply for the purpose of fighting other queens.

The ancients were aware of the existence of a governing bee in each hive, but they thought it was a king. But a scientist with a keen insight and massive brains, one day saw the monarch come off the nest and leave 2,124 warm eggs. Then it was settled in his mind that it could not be a king, for he was a deep, deep man. His name was Swammerdam and he made the discovery 200 years ago last week. Aristotle and Virgil claimed in several articles, signed Veritas and Taxpayer respectively, that the queen or king, as they called it then, did not lay at all, but secured some kind of pollen or other material from flowers, which produced the maggots from which the bees were hatched.

A writer on the bee says that the best way to ascertain the location of the queen is to divide the swarm, after which it will be noticed that the one having the queen will become very restless indeed. I tried this myself and found that they were restless. They also communicated their restlessness to me. All of us got restless.

Swammerdam tied the queen by means of a long hair to a high pole in order to ascertain whether the swarm

The Bees are Swarming.

would follow. In ten minutes he had the whole colony on top of the pole.

The drones are the male bees of the hive. They do no work except to act in parental capacity and vote. They have no stinger, but in its place a good appetite and a baritone voice. They are destroyed by the workers soon after the honey season, and the widows have it all their own way. The drone leads a quiet and rather sunny life, lasting about sixteen weeks, after which he is put to death by the females of the hive by the Maybrick method.

About nine-tenths of the hive are workers or female, say twelve to fifteen thousand. They are the busy bee referred to in the books. They get up early in the morning, eat a hasty meal and go out looking for honey. They fly with great force and as straight as a bullet. Sometimes they try to go through a man on the way to the hive, but only get part way. A bee likes to have a tender young man with linen trousers sit down on it.

From the time the egg is deposited until the perfect bee is turned out, requires about three weeks. A queen gets her growth in sixteen days and begins to reign.

Moths get into the bee-hives frequently during the winter season and destroy the insects. For this reason bees should be packed in snuff or fine-cut tobacco in the fall. This nauseates the moth and discourages him. Great care should be used not to let the bees out too early in the spring. A good writer says that frozen fruit will still remain on the trees in the spring; while it contains a certain amount of sweet, it is liable to ferment and cause wide-spread colic in the hive, followed by cholera infantum and coma.

Linnæus says that nothing is more pitiful than the picture of fifteen or sixteen thousand colicky bees suddenly called forth in the dead of night, running hither and thither looking for hot cloths and Jamaica ginger, after eating too heartily of frozen apple-juice.

Bees swarm about 10 a.m. or 3 p.m. and enjoy doing so on Sunday if possible. Selecting a hot Sabbath, and waiting patiently until the farmer has shaved one side of his face and lathered the other, the bees decide that they will swarm. The farmer's wife notices it while she is in the garden getting a sprig of caraway to take to meeting. She calls Henry and tells him the bees are swarming. He starts out with a new hive, and looking up in the air he falls over a croquet set and injures himself. His wife says: "Henry, you ought to put on that mosquito bar arrangement I made for you the other day. They are real cross this morning and they will sting you if you don't."

"Git out with your pesky nonsense," he straightway doth reply. "I never put nawthing on me before and I won't do it now."

"But, Henry, they are so feverish today, and you havn't got your other clothes on, so that they wont know you. Do try it this time."

So he wraps up his head in a green mosquito net and puts on a pair of cowhide mittens. The bees alight on a tall elm tree and he gets a ladder up there against it. Then he slowly ascends the tree with a bee-hive under his arm. Just before he put on the mosquito net he took a large chew of tobacco. He now wishes that he had not. People began to go by on their way to meeting and see him up in the tree with a large green head on him and hot leather mittens. They speak to him but he cannot reply because his mouth is full of tobacco. It is very hot indeed. The sun pours down through the hot leaves, and the breeze is taking much needed rest. He gets up in the top of the tree and looks like a new style of lizard. Sabbath-school boys, wearing chip hats faced with gingham, pause on their way to the house of worship and watch him. He reaches out

When the Bees have Ceased to Swarm.

to scoop in a handful of the brown fuzzy insects, but the leather mits smell strangely to them. They do not recognize the proprietor by his paws and his odor. Three or four bees fall down inside those mittens, and, feeling that they must defend themselves, make a hot highway across the back of his hand. Then Henry yells and drops the hive on the Bible class. Some bees get under his green veil and his hair, and finding that they cannot get out, they sink on him with their little heated hypodermics, and he says things which bring the blush to the features of his sad wife.

For days afterward they sit opposite each other at the table and do not say anything. He looks at her savagely with one eye, the other being closed by its creditors. It is three days before he will even ask her to pass the butter, he is so mad.

Bees are very industrious, but fool themselves by accumulating more than they need, forgetting that they will soon die and leave their substance for the use of those who did not earn it. We should learn a lesson from the bee and not run the matter of industry into the ground. We should not strive to accumulate so much that it will prevent our enjoyment during our lifetime and only enrich the idle after our death. Bees should remember that their shrouds will not hold honey. The bee could learn much from man, I think, in this way. BILL NYE.

BEE-NOTES.

Some Interesting and Practical Advice for Bee-Keepers.

Written for the American Bee Journal
BY DR. J. M. HICKS.

All needful work in the apiary is just as necessary to be done at the right time, in order to be successful, as it is that the farmer should sow his wheat and oats, and plant his corn in season, in order to have crops.

The bees should not be molested during "dog-days;" but see to it that all colonies are in good condition, and that the increase of swarms is made at least by the middle of June.

I prefer to make my increase by dividing colonies, which is best done in a movable-frame hive.

In order to succeed, I would advise all to look early in the spring as to the condition of the bees, and if you have a weak colony, see that it has a queen, and feed it a little thin syrup every day, to stimulate the queen for early breeding. This is best to be done in the evening.

To prepare syrup for the bees, I use coffee "A" sugar, at the rate of four pounds to a quart of water, to be heated and well dissolved, and fed in glass tumblers, by tying cotton cloth over them, and then inverted over the bees in the top of the hive; as they are emptied, refill, and replace as before. You will be surprised to see how fast the bees will increase in numbers.

Bees will, as a rule, pay an increase of 200 per cent. in an ordinary season, if properly managed. One colony paid 500 per cent. this season. A good movable-frame hive of the best pattern, a honey-extractor, and a good bee-tamer, are all necessary implements for the bee-keeper to have, and use, in order to succeed.

See to it that all surplus honey is removed from the hives before the fall crop comes on, and have plenty of empty frames or sections in the hives for refilling.

Allow no colony to be without a good, prolific queen, at this or any other time of the year. Now is a good time to procure such, from some good queen-breeder. Italian and Cyprian bees are the best for all practical purposes, and by far the most docile bees to handle, as well as being very prolific.

It is a curious fact that the days of humbugs are still among us, as we notice that the editor of the AMERICAN BEE JOURNAL saw the painful necessity of exposing as a fraud, Ells & Co., of Chicago, who are advertising with circulars, their recipe for making "Artificial Honey." I would urge all to beware of all such frauds, as there is no pure honey except that which the bees gather, and store from the flowers of the field. All efforts to palm off such stuff, calling it "artificial honey" is as much a fraud as with the oleomargarine, and until it is legalized (as all such frauds are usually, when money enough can be paid to do so), it is a fraud nevertheless, both on the public, as well as on the consumer.

Indianapolis, Ind.

CLIPPED WINGS.

Management of Swarms when the Queen is Clipped.

Written for the American Rural Home
BY G. M. DOOLITTLE.

I have four plans which I use, either of which works well. The first is to hive the bees on the returning plan, allowing the swarm to occupy the place of the old colony. This is done as follows:

When the swarm is seen issuing, step in front of the hive far enough so you will not be liable to step on the queen, should she have gotten out before you reach the hive, and also so that you can take in quite a bit of territory with the vision, for if too close you will see but little of the ground, which causes a longer search, with less prospect of finding the queen than if farther off.

As soon as the queen is found, let her run into a wire-cloth cage, entering the same readily if it is held a little in front of her, and in an upright position. When she is in the cage, put in the movable stopper so as to secure her, when she is to be placed in front of the old hive, or anywhere you please, only so you do not step on the cage and hurt her, as I knew a certain person to do once.

Next, move the colony to a new stand, and place a new hive where the parent colony was when the swarm issued, placing the caged queen at the entrance. In from five to thirty minutes the bees will miss their queen (generally in from 5 to 8 minutes), and come back from where they left, in search of her, running with fanning wings into the new hive, when the queen is to be set at liberty and allowed to go in with them.

The second plan is one which I use when I wish to leave the old colony on the old stand, and is as follows:

Proceed to hunt up the queen as before, and as soon as she is found, turn the old hive half way around, and off of the ground (to the rear) where it stood. Now place the new hive where the old one stood, placing the queen at the entrance of the new hive as before. As soon as they come back and all enter the new hive, take the new hive and carry it where you wish it to stand, bringing the old hive back to its former position. By these two ways it will be seen that the bees hive themselves; no climbing of trees, cutting off of limbs, or anything of the kind, which our fathers thought it necessary to do.

My third plan is, when the bees begin to cluster on the branch of a tree, which I care nothing for, I attach a wire to the cage, and hang it with the clustering bees; then when I get ready to care for them, I cut the branch from the tree, and carry them to the hive, which has been previously placed where I wish the colony to stand, or one that I have prepared while they were clustering on the limb. No danger of their going to the woods if you let them hang there all day.

I was amused one day by seeing a swarm uncluster and start for the woods, as I was about to cut off the limb, and take them to the hive. Away they went, clear out of sight, so I sat down to watch operations. In about a quarter of an hour, back they came, and I was anxious to see whether they would go to the tree where the queen was, or to the old stand. I was soon satisfied however, for they soon clustered back on the queen.

If any of the readers wish a swarm to go to work in the open air, this gives them a clew to how it can be done, for after having given up that there is no use of trying to get off, they will settle down to work on the limb where they have clustered. When they get some combs started, they will be liable to stay, after which the queen can be set at liberty.

The fourth plan is to cage the queen as before, when a large corn-popper is to be so held in front of the hive that many of the issuing bees will run into it. If you do not see the queen, so as to cage her before the thickest of the bees have ceased leaving the hive, catch the bees first and then look for the queen.

Having the bees in the popper, and the queen in the cage, attach the cage by means of a wire hook, to the popper so it will hang snugly to one side of the same. Previous to this you should provide yourself with a light pole of sufficient length to reach the highest place where the bees are liable to cluster, into the small end of which there should be bored a hole of the right size so that the popper will screw into it firmly.

Having the bees in the popper and the caged queen attached, screw the popper in the end of the pole, raising the same and carrying it into the midst of the swarm, where they are flying

the thickest in the air. The bees in the popper will fan their wings on the side next to the queen, which tells to those in the air that they have found the queen and are clustering about her, when as a rule the swarm will at once begin to cluster on the popper also.

Some swarms, however, are determined to cluster on a tree or nowhere, and in such a case, as soon as one-fourth of the bees have clustered on the limb, hold the popper immediately under and up against those on the limb, when the balance of the bees in the air will begin to cluster all over the popper. When about two-thirds of the bees are clustered, draw the popper away from the limb a little, so fixing it that you can leave it, when all of the bees will leave the limb and cluster on the popper as you wish. While you are waiting for them to go from the limb to the popper, you can be getting the hive ready, or any other work you may have to do. As soon as they are clustered on the popper, you can carry and hive them where you wish, the same as you would, had you cut off a limb.

Borodino, N. Y.

SUGGESTIONS.

The New Constitution and By-Laws of the Bee-Association.

Written for the American Bee Journal
BY DR. C. C. MILLER.

I see that there are differences of opinion arising from the fact that different persons are quoting from different places. Secretary Holtermann says, "I wonder where Dr. Miller is quoting from." I quoted from the report of the proceedings for 1887 without knowing at the time that the report for 1888 differed. Dr. Mason and Mr. Holtermann have evidently taken the report for 1888. The only question of difference between us is, which report shall we take?

On page 22 of the report for 1888 I find this: "Finally attention was turned to the consideration of the proposed Constitution and By-Laws for the society. This was prepared last year by Mr. Thomas G. Newman.... It was voted to adopt the new Constitution and By-Laws." Now did we adopt what was in the 1887, or the 1888 report? Clearly we could not have taken anything from the 1888 report, for it was not then in existence. I hardly think that any one will think that we adopted anything but the Constitution and By-Laws as given in the 1887 report, for that was the only thing referred to, and, unless my memory is badly at fault, no change was made in it, nor ever talked of. If any error has crept into the following report, that, surely, is not to be accepted as the action of the society.

Messrs. Mason and Holtermann will, therefore, I think, agree with me that, according to Article VII, the President and Secretary "shall constitute an executive committee;" and that according to Article VIII of the By-Laws, "A committee of five *shall* be elected, who shalt have power to organize itself into a 'Honey Company.'"

The Society's New Name.

With regard to any change in the name of the "International American Bee-Association," its present name is so cumbrous that it will probably be used in full very rarely; but it would be better not to make any change, than to change to a name that would appear to be claiming to be what we are not. Other nations charge the Yankees, I am sorry to say, only too justly in many cases, with being given to exaggeration, and if that characteristic should crop out at Brantford, I hope that there will be enough conservative Canadians there to hold things level.

Dr. Mason's suggestion to have an odd number on the executive committee, is a good one. There is some mistake in the report for 1888, as Article IV and Article VII conflict as to the number on the executive committee.

Dr. Mason need not look for any sympathy from me on the President's-address business. I am "furnenst" it, at least till he is out of office: for I feel pretty sure that if he made a closing address, he would quote quite largely from the address that I made (?) when I delivered up the keys of office to him.

Marengo, Ills.

[The above was written some time since, and as it required some comments, was put into a drawer, (as we were then busy), and forgotten until just now found there. We beg Dr. Miller's pardon for the delay. The conflict in Articles IV and VII as to the number in the executive committee should be amended at Brantford. In fact, it needs a full revision. When it was referred to the committee at Chicago, it was expected that it would be carefully revised. As they did not do it, if our memory serves us right, we made some corrections in writing in our copy of the Constitution, (among them the *shall* was changed to *may*) and we intended to present these as amendments at Columbus. We expect that our copy was given out to the printers, without a thought about the changes, and as the printers supposed the changes were made by the convention, they were incorporated into the report. This will explain to both sides of the controversy the cause for the discrepancy, and we hope will satisfy them. If we can get the time, we will prepare some amendments to present at the next meeting, and hope Dr. Miller and others will do the same. All we want is the most *perfect* document on record.—ED.]

COMB HONEY.

How to Care for Comb-Honey, Where to Keep it, etc.

Written for the Iowa Homestead
BY EUGENE SECOR.

As the season for caring for honey is here, and as I am convinced by conversations with some bee-keepers, as well as people generally, that a great many do not know how to care for honey, a few words may not come amiss at this time on the subject.

In the first place, there is no hurry about taking it off the hives. The bees can care for it more cheaply, and even if it is not quite so white as when taken off earlier, its flavor is improved by perfect ripening, which, to my mind, more than compensates for the slightly darker shade which the comb presents.

If taken off during warm weather it will sometimes be spoiled by the larvæ of the bee-moth. The worms can be fumigated with sulphur in a tight box or room, but this is seldom necessary, and is not practiced to any extent by the best honey producers. If comb honey is produced by the best methods there will be scarcely any pollen cells in it, and in the absence of these the moths do little harm. A worm is seldom seen in surplus honey unless there is pollen in some of the cells. When honey is taken off the hive, if in small sections containing only one comb each, it can be held up to the light and every cell of pollen detected. If these are kept by themselves and used or sold first, the rest will be comparatively free from moths.

Honey should never be kept in a cellar—neither comb nor extracted. That is the worst possible place for it. It will gather moisture, or "sweat," and soon become "off flavor," if not positively sour. Store it in a dry, warm room if possible (safe from mice), then it will keep ten years. It will not

granulate so soon in a warm room, and its flavor will improve. I now have some that is three years old, and it is not candied, but is so thick that it will not run. Extracted honey cannot be kept in too warm a room.

Forest City, Iowa.

SWARMING.

Annoyed by Too Much Late Increase of Bees.

Written for the American Bee Journal
BY MRS. MARTHA ANDERSON.

I desire to ask a few questions, to be answered in the BEE JOURNAL, viz.:

1. My bees have commenced swarming over. The old colonies that I wintered through, cast from two to four swarms in June, and now they are issuing as large swarms as I ever have seen. My new colonies have cast from one to three swarms, and I have put a great many back into their old home. If there is any way to prevent their swarming, I would like to know. I like to see swarms in May and June, but at this time of the year I am tired of it.

I have lost several swarms by not expecting them to swarm, and being away from home. I cannot complain of my bees not working, for I think that they have done well. I have taken off over 1,000 pounds of clover honey in one-pound sections. Some colonies have stored 72 pounds each, and cast three swarms.

If the honey-flow continues till Sept. 20, some will store 120 pounds each, while others will not do so well. These are June's swarms.

The bees are working hard on the Alsike and red clovers. We have 15 acres of the former, and it is a continual hum of bees all the time on the clover.

I started last spring with 32 colonies in good condition, and they did not swarm until June 3; then I had from 3 to 10 swarms a day during that month. I put on surplus sections to give them more room, and still they swarmed. I have 101 colonies of bees—more than I care for.

2. I am not a member of the Bee-Keepers' union, and would like to know if it sets the prices on honey. It is only worth 10 cents per pound here, and that is not enough. I live 3 miles south of Bushnell.

Bushnell, Ills, Aug. 19, 1889.

[1. Swarming at this season of the year is unprofitable. To prevent their absconding, about the best thing is to clip the queen's wings.

2. The "Union" has nothing to do about the market price of honey—it is only for the defense of the pursuit of bee-keeping.—ED.]

GERMANY.

What Bee-Keepers are Doing in the Fatherland.

Written for the American Bee Journal
BY REV. S. ROESE.

The following are some facts and notes about bee-keeping in Germany, from the *Bienen-Vater:*

Bee-keeping in Germany, according to current reports from various German bee-keepers, has advanced to a standpoint of perfect organization; associations and conventions having been organized all over the land, which jointly form a General Assembly, to meet annually. The associations are again subdivided into sections with a foreman ("called Opman"), to preside at their quarterly meetings. Such foreman is elected by the General Assembly, or, in case of necessity, appointed by the President of the General Assembly.

Such foreman is to be well qualified to deliver lectures and essays on modern bee-keeping, and impart to all the members of his section the needed instruction to qualify them in apiculture, and keep pace with the main body; and as a body they control the honey markets, to a great extent, all over the land.

Honey markets and honey depots are established in all large cities. The City of Frankfort-on-the-Main alone has 5 of the established depots, whose actions are all sanctioned by the Imperial Government.

The General Assembly for 1889 is appointed to meet at the Giant City (so-called because 2 Giants stand in front of the City Hall) of Arnau, on the Elbe, at the rooms of the Imperial Upper-Gymnasium; and to this effect the Burgomaster has, by telegram, invited the Assembly as welcome guests. August 25 and 26 is the time appointed for the meeting, in connection with the International Exhibition of live bees, hives, products and apiarian supplies, with rich awards and premiums. The programme is a very interesting one, with invitation for all bee-keepers, at home and abroad. Subjects of interest will be discussed, and presented to promote the interest of this art and honest industry.

They mourn the loss of two prominent members of the cause—one in the person of Isador Weber, one of the most active section foremen, who in a short time increased his section to a membership of 110, well-drilled and instructed in the art of bee-keeping. He died on July 2, 1889, of congestion of the lungs, being in the 47th year of his life.

The other was Edward Cori, a prominent bee-keeper and learned man, who since 1831 occupied positions of honor and trust. Friends from far and near came to visit his apiary at the city of Bruix. When at the decline of life, in his 70th year, he reduced his number of colonies to a few, he devoted himself to rose culture, which occupation he followed until his decease. In the fall of 1888, while preparing his large varieties of roses for winter, he felt the symptoms of marmarmus rapidly advancing, and after a slight cold, which he had contracted, he died on Jan. 24, 1889, in the 79th year of his useful life.

I am in receipt of a copy of *Der Deutsche Bienen-Vater*, published at Zwikau, in the interest of apiculture in Germany, and am requested to kindly ask the AMERICAN BEE JOURNAL to publish a notice in its columns, as follows:

The 44th General Assembly of bee-keepers in Germany will hold its sessions on August 25 and 26, in the city of Arnau, on the Elbe, in connection with the International Exhibition of live bees, hives, implements and products, at the Imperial Rooms of Upper-Gymnasium. All bee-keepers at home and from abroad are cordially invited to attend, with the assurance that nothing will be spared to make this gathering a meeting of success and pleasure.

By order of the President,
ADOLPH SCHMIDT.

I am surprised to find Germany advancing so much in apiculture. Prussia, in its kingdom alone, has 1,458,764 colonies of bees, in working order now, and branch bee-keepers' associations without number.

The editor of the *Deutsche Bienen-Vater* sent me an invitation to attend the General Assembly, and a Legitimate Card for half-fare to attend this gathering.

Maiden Rock, Wis.

We Want a Representative at all the Fairs to be held this season. The AMERICAN BEE JOURNAL is the recognized defender of the rights of the bee-keepers, against the attacks of the ignorant and prejudiced. There are thousands who would gladly subscribe to it if it were only brought to their notice, and its claims presented. When making an exhibit, please send for our *Colored Posters* and sample copies, and get up a club. In this way you will not only pay yourself for the trouble, but also aid the pursuit, and its defense all over the country.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Aug. 31.—Haldimand, at Fisherville, Ont.
E. C. Campbell, Sec., Cayuga, Ont.

Sept. —.—Maine, at Livermore Falls, Me.
J. F. Fuller, Sec., Oxford, Me.

Sept. 3.—Iowa State, at DesMoines, Iowa.
J. W. More, Sec., DesMoines, Iowa.

Sept. 5.—Erie County, at Buffalo, N. Y.
O. L. Hershiser, Cor. Sec., Big Tree Corner, N. Y.

Sept. 14.—Susquehanna Co., at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Oct. 16—18.—Northwestern, at Chicago, Ills.
W. Z. Hutchinson, Sec., Flint, Mich.

Dec. 4-6.—International, at Brantford, Ont., Canada.
R. F. Holtermann, Sec., Romney, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of futura meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Honey Crop Almost a Failure.

—H. E. Hill, Bear Lake, Pa., on Aug. 19, 1889, writes:

The crop of white honey in northwestern Pennsylvania is almost a failure, though a few producers report a full crop, while many in Crawford, Warren and Erie counties, in this State, and Chautauqua county, N. Y., claim a complete failure, attributable to the continued cold, wet weather during the clover season. The "good honey crop" so generally anticipated and talked of last May, has failed to materialize in this section of the country. Buckwheat is in bloom, but the weather is too cold for the bees to get out.

Good Outlook for Fall Honey.

—J. W. Sanders, LeGrand, Iowa, on Aug. 21, 1889, writes:

The weather is still fine and bees are doing well. They are still working on white clover, with which our pastures and roadsides are still white in places. How is that for white clover in Iowa? It began to come into good bloom on June 10. Buckwheat and other fall flowers are also beginning to bloom abundantly; so the outlook is still good for more honey and a busy time, if the weather keeps all right. The white honey harvest in this section of Iowa has been good, and many who *keep bees* think that the country is overstocked, and that honey will have to sell at very low rates in order to find consumers for all the grand harvest. I tell them that they ought to take the AMERICAN BEE JOURNAL and keep posted on the general crop. Out of over 60 colonies in the spring, I have had but one to swarm, and that returned in less than ten minutes, and remained satisfied. My queen's wings are clipped. I give plenty of room, help the weak from the strong, make new colonies by rearing queens from my best, and build up the nuclei by giving frames from other strong colonies. I have used this plan for several years, and I have succeeded in keeping swarming and increase almost entirely under control. I prefer it to chasing swarms and climbing trees.

Swarm in a Dwelling-House.

—Noah Clemmons, of Rock Bluffs, Nebr., writes:

I captured a nice swarm of bees from under the weather-boarding of a dwelling-house on May 29, and have it at home, and it is doing well. The bees went in the house through a knot-hole about 10 feet from the ground, last summer, and built comb from one studding to the other—about 3½ feet long. I took the siding off and got them out nicely. Can anyone beat that? I have just received two nice Carniolan queens, which I am going to try.

Honey Crop Below the Average.

—Martha Smith, Monroe, Wis., on Aug. 8, 1889, writes:

Bees in this locality are killing the drones and sealing their hives. Owing to the cold nights, the honey crop is below the average. My 23 colonies have increased to 43, and given about 500 pounds of comb honey, and about 525 pounds of extracted. There is no prospect for a full crop. The "artifical honey" story, as published by the Chicago *News*, appeared in a recent issue of the *Northwestern Mail*, a temperance paper, in which one seldom reads such *misleading* articles.

Good Results of the Season.

—I. N. Arnold, Richmond, Iowa, on Aug. 14, 1889, writes:

The white honey crop is over for this year, and has been very satisfactory to the bee-keeper, although the linden was almost a failure in this locality. My home apiary was run for increase this season, and my Pilotsburg apiary for extracted honey, managed under the Dadant style. I have 11 colonies that have stored 360 pounds each, and 12 colonies that stored 240 pounds each; this makes 6,840 pounds from 23 colonies in that apiary, with 8 and 9 Quinby frames in the brood-chamber with plenty of honey for the winter. This is no guess-work—the honey was all divided, and one-sixth went to the party where the apiary was. The honey is very fine, almost all being white clover. Who can beat my 23 colonies in Iowa, and leave plenty of honey in the brood-chamber for winter? My honey crop will be between 12,000 and 13,000 pounds for the season. I think that the fall crop will be light, from the present appearance. I sell most of my honey in ten-pound tin-pails, in my home market.

Honey and Beeswax Market.

PHILADELPHIA.

HONEY.—Prices are not fully established, being a little too early. Only a few shipments have yet arrived, which sold readily as follows: Best white, in 1-lb. sections, 16½c., and 2-lbs., 14c. Off grades generally 1 to 2 cts. less. Extracted, white clover, 8½c.; orange blossom, 7½@8c.; off grades, per gal., 60@70c

BEESWAX.—23½@24½c.

Aug. 15. WALKER & McCORD, 32 & 34 S. Water St.

DENVER.

HONEY.—We quote: New in 1-lb. sections arriving freely at 16@18c.; extracted, 6@8c.

BEESWAX.—18@20c.

Aug. 10. J. M. CLARK COM. CO., 1421 15th St.

CHICAGO.

HONEY.—New honey arriving freely, and all the shipments have been promptly closed out so far. We quote: 1-lb. white clover, according to style of package and appearance, 14@18c. Receipts of extra ted increasing; demand light, at 6@8c.

BEESWAX.—25c.

Aug. 1. S. T. FISH & CO., 189 S. Water St.

NEW YORK.

HONEY.—Extracted, California, 7½@8c.; orange bloom, 7½@8c. White clover and basswood, 7½@8c. Common Southern, 65@75c. per gal Fancy comb, white 1-lbs., 16c.; fair 1-lbs., 14c; 2-lbs., 2c. less.—The New York crop being comparatively small, the Western apiarists will find a good outlet here in the East. As prices this season are about 10 per cent. lower than last season, we expect an active demand.

Aug. 21. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—Coming in freely, but sales are not eisily made at over 15c. for the best, while we are trying to get 16c., and think that later we can get it, as all buy sparingly now. Extracted sells at 6@8c., but chiefly at 7c. for white.

BEESWAX.—25c. R. A. BURNETT.

Aug. 12. 161 South Water St.

DETROIT.

HONEY.—New crop is coming in slowly, and sells at 14@15c. for comb.

BEESWAX.—23c.

Aug. 21. M. H. HUNT, Bell Branch, Mich.

ST. LOUIS.

HONEY.—We quote: Choice white clover comb, 12@12½c.; fair, 10@11c.; dark, 7@8c. Extracted, in barrels, 5@5¾c.; in cans, 6@6½c.

BEESWAX.—24c. for prime.

Aug. 21. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—New comb arriving freely. Demand is fair, although weather is too warm. We quote:—Fancy white 1-lbs., 16c.; 2-lbs., 14. Fair 1-lbs., 14c; 2-lbs., 12c. Excellent demand for all kinds of the extracted, as follows: Orange blossom, 7½@8c.; white clover and basswood, 8@8½c. Southern, average quality, per gal., 65@70c.

HILDRETH BROS. & SEGELKEN,

Aug. 21. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—It has arrived freely, but sales are a little slow, at 17@18c. for 1-lbs.; and 2-lbs., 15@17c. Extracted, 8@9c.

BEESWAX.—None on hand.

Aug. 21. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Demand for extracted is fair from manufacturers, and from consumers for table use. Good demand for best qualities of comb honey, while inferior grades find slow sale. It brings 11@15c.

BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.

Aug. 21. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—Receipts of comb honey are large, but market slow, at 14@15c. for white 1-lbs., and 13@14c. for 2-lbs. Extracted, white, 7@8c.; dark, 6c.

BEESWAX.—20@25c.

Aug. 22. CLEMONS, CLOON & CO., cor 4th & Walnut.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

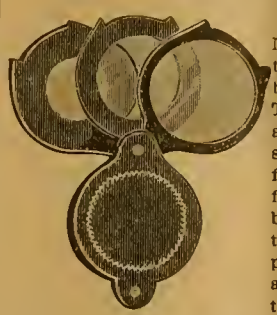
A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.



Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2 00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Always Mention your Post-Office County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

New Posters for the AMERICAN BEE JOURNAL, printed in two colors, have just been printed, and will be sent free to all who can use them. They are very handsome, and will "set off" an exhibit at Fairs. It will tell Bee-Keepers how to subscribe, for "Subscriptions Received Here" is quite prominent at the bottom.

We will also send sample copies of the BEE JOURNAL, for use at Fairs, if notified a week or ten days in advance where to send them.

Prang's National Flower is the title of a beautiful pamphlet which contains two colored plates of the two most popular candidates for selection as the National Flower of America. It also has two poems, and a postal card addressed to Messrs. L. Prang & Co., Boston, Mass., with a vote to be filled up for the selection of a National flower. The pamphlet costs 25 cents, and can be obtained at this office.

Having a Few extra sets of the AMERICAN BEE JOURNAL for the years 1887 and 1888, we will supply both these years, and 1889 and 1890, for $3.00, until all are sold. Or we will send 1888, 1889 and 1890 for $2.50, all by mail, postage paid. These are very valuable, and those who have not yet read them should lose no time in securing them.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Queens.—We can supply Tested Italian Queens at $1.50 each; Untested, $1.00 each, by mail, postpaid.

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Muth's Honey Extractor,

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Cor. Freeman & Central Aves., CINCINNATI, O.

P. S.—Send 10c. for Practical Hints to Bee-Keepers

Mention the American Bee Journal.

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IS THE TIME to **Supersede** your old Queens, or Italianize Black and Hybrid Colonies. We have 150 to 200 Nice Young Italian Queens, which we will sell for Cash, or exchange for Extracted Honey, viz:

1	Warranted Queen	$1.00.
6	" Queens	5 00.
12	" "	9.00.
1	Untested Queen	.75.
6	" Queens	4.50.
12	" "	8.00.
Tested Queens, each		1.50.

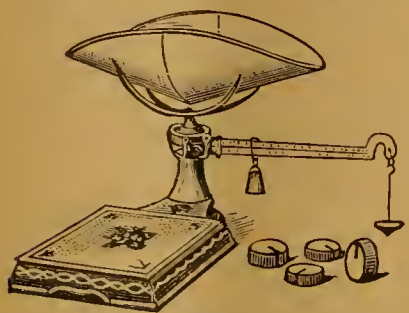
☞ Please address, with description and price of Honey, f. o. b., at your R. R. station,

WM. W. CARY,
35Atf COLERAINE, MASS.

Mention the American Bee Journal.

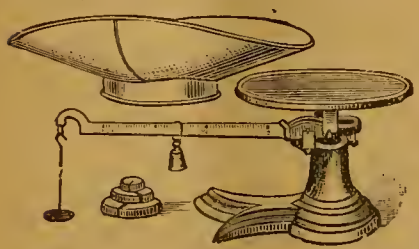
Useful Scales

The Union or Family Scale.



This Scale has steel bearings, and it weighs from ½-ounce to 240 pounds. Price, with a Single Brass Beam, as shown in the illustration, $3.00. With Double Beam for taking the tare, $3.50.

The Little Detective Scale.



This little Scale is made with steel bearings, and a brass Beam, and will weigh accurately ½-ounce to 25 pounds. It supplies the great demand for a Housekeeper's Scale. Prices:

Single beam, no scoop	$2.00.
" " tin "	2.50.
Double " no scoop	3.00.
" " tin "	3.50.

☞ All orders filled promptly.

THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL.

ITALIAN and ALBINO Queens, by return mail. Tested, 90c.; Untested, 60c. each, or 2 for $1.—3-frame Nuclei, $2 each.
33Atf GEO. STUCKMAN, Nappanee, Ind.

BEE KEEPERS

Should send for my circular. It describes the best Hives, the best Cases, the best Feeders and the best Methods. Address,

J. M. SHUCK,
DES MOINES, IOWA.
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An Old Bee-Book Revised, and Dadant's Foundation. See advertisement in another column.

Extra Thin FOUNDATION

In 25-Pound Boxes.

WE CAN now furnish the **Van Deusen** EXTRA-THIN Flat-Bottom FOUNDATION put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box. **12 ft.** to the lb.

☞ The above is a **special offer**, and is a **Bargain** to all who can use that quantity.

All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

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There is to be found a vast amount of reading each week in the columns of THE YANKEE BLADE.
It has thrilling serials of the Sea, War, Adventure, City and detective life
It contains six or eight short stories each week intensely interesting, and devoid of any objectionable or impure features
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Free exchange notices are inserted for subscribers
Good advice to the young in our correspondence column.
Our Third Page is devoted to the children's and household departments.
On our Eighth Page appear every week some of the brightest gems of original humor to be found anywhere in America.
THE YANKEE BLADE is the best family weekly published.
Send 10 cents at once for 10 weeks trial.

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It is a condition of this offer that every person who sends a subscription shall at the same time send the names and addresses of at least three story readers or female heads of families, to each of whom we may send a sample copy of THE YANKEE BLADE If any one wants to subscribe for a longer time than ten weeks we will accept subscriptions as follows

One year, $1.00; two years, $1.75; three years, $2.40; four years, $3.00; five years, $3 50. One-cent postage stamps will be taken for fractions of a dollar. All large amounts may be sent safely by registered mail or P O money order. An express money order may be purchased at any express office for only five cents and is an absolutely safe way to send money We guarantee you entire satisfaction.

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FOR HONEY.

THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen	$1.60
" 2 pounds " "	2.00
" 3 " "	2.50

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Forty-eight pages of descriptive matter and illustrations of Southern California. Mailed to any address for 20 cents. Stamps taken.

Address, **AYERS & LYNCH,**
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Send 75 Cents for my Book, entitled—"A Year among the Bees;"—114 pages, cloth bound. Address,
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ITALIAN Queens, Tested, $1.25.; Untested, 75c., 3 for $2. Circular of Bee-Supplies, &c. *free.* JNO. NEBEL & SON, High Hill, Mo.
20Atf

No. 1, $2.00...No. 2, $1.75...No. 3, $1.50.
No. 4, 1.25...No. 5, 1.00...No. 6, .65.

Knife, $1.15.

On receipt of the above price.

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BINGHAM & HETHERINGTON SMOKERS are staple tools, and have been used **Ten Years** without complaint, and are the only stove-wood, clear-smoke Bee-Smokers. No giving out. No fussing. No going out. No vexation.

Address,
BINGHAM & HETHERINGTON,
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Mention the American Bee Journal.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,
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British Bee Journal

AND BEE-KEEPERS' ADVISER,

IS published every week, at **6s. 6d.** per annum. It contains the very best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley Herts, England

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SECTIONS! SECTIONS! SECTIONS!

WE are now offering our No. 1 V-Groove Sections in lots of 500, at $3 per 1,000; No. 2 Sections at $2 per 1,000. For prices on Foundation, Hives, Shipping-Crates, &c., &c., send for Price-List. Address,

J. STAUFFER & SONS,
(Successors to B. J. Miller & Co.,)
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THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD
PUBLISHED BY
THOS. G. NEWMAN & SON,
CHICAGO, ILL.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Sept. 7, 1889. No. 36.

EDITORIAL BUZZINGS.

Don't Be Like Moses.

But one step more, disasters teach,
And gloom had all turned sunny.
Like Moses we just fail to reach
The land of milk and honey.

But a great many make a fatal pause from lack of encouragement.—*Sel.*

The Editor of the AMERICAN BEE JOURNAL has been appointed to judge the exhibits of Bees, Honey and Apiarian Supplies at the International Fair and Exposition, at Detroit, Mich., which will be held from September 17 to 27, 1889. He hopes to meet many friends at that time.

The Chicago Convention will be held on **Friday and Saturday, Oct. 11 and 12, 1889.** This change of date has been made, because the Railroad Traffic Association has made a rate of one fare for the round trip from any point within 200 miles of Chicago, good on Oct.10, and can be used on any train returning after that until Monday, Oct. 14. The first session will be held at 9 o'clock in the morning of Friday, and an adjournment can be had on Saturday afternoon in time for those who may wish to return on that day. Those who can remain over Sunday will have an opportunity of visiting our magnificent churches and cathedrals in the morning and evening, and of taking a pleasant walk in the parks or riding on the boulevards in the afternoon, as their inclination and tastes may lead them.

October is usually a very pleasant month, and this will give an opportunity to many who need a recreation, to take it at a small outlay, and at the same time to "take in" the Bee-Convention. The invitation is full and wide—*Come all who can.*

Sweet Clover on the Roadside.—On page 413, Mr. C. A. Huff, Clayton, Mich., complained of his neighbors who objected to his sowing sweet clover on the roadside of his own farm, saying that it was a noxious weed, like Canada thistles, and asked if it was lawful, etc. We replied that as the land to the middle of the street belongs to the owner of the fields, he can sow what he pleases on the roadside, unless it be a noxious weed, which is prohibited by law. Sweet clover is neither prohibited nor is it a noxious weed. It will not spread into the fields, and dies root and branch after the second season. To cut it two seasons, before the seed matures, will free the land from it entirely. It is in no manner like Canada thistles, except in that it is an excellent honey-producer. Of this we sent a printed slip to Mr. Huff, and he writes us as follows, dated Aug. 19, 1889, concerning it:

My neighbor, after going to the pathmaster of our district, and then to the highway commissioner, has let the sweet-clover subject drop. I sent the printed slip you sent me, to Prof. A. J. Cook, and he said that it was correct; then I sent it to D. B. Morgan, prosecuting attorney, and he replied as follows:

"After looking at the printed slip enclosed, and examining the Statute of this State, I am inclined to believe that you have a right to sow it on your land in the highway. This belief is with the understanding that it does not spread in a way to work an injury to adjoining land owners. If it does do so, they might possibly have an action against you for damage, but I do not think that there is any *penalty* for sowing it."

When I showed this to the pathmaster and highway commissioner, they said that they had nothing more to say. Thanks to you and Prof. Cook for your help in this matter

The honey crop is very light in this part of the State.

The National Bee-Keepers' Union, through its Vice-President and Manager, has helped another man out of trouble, threatened by jealous and disagreeable neighbors. Surely it has a good claim to existence.

Ignorance about Comb Honey.—On page 499 we gave an account of an interview with a grocer who believed that comb honey was manufactured, thus proving himself to have been easily duped by the Wiley unpleasant "pleasantry." There may be some excuse for those who know nothing about the *modus operandi* in the production of comb honey, when they have been deceived by false statements; but how a bee-keeper in apparently "good and regular standing" in the fraternity, can be led to believe that comb honey is made otherwise than by bees, is utterly incomprehensible, and a clear case of totally inexcusable ignorance. But such a sad case of stupidity really exists—at least we have discovered him.

One day last week, there called at this office, one who desired to purchase some supplies, stating that he *kept bees*. He remarked that honey would be very cheap this year, as it could now be had on South Water Street (Chicago), for 10 cents per pound; but that the *cheap* kind was the manufactured article. We then asked him if he really believed that comb honey is manufactured. "Why, yes!" he replied. We were simply astonished, to learn that a bee-keeper would imbibe such falsehoods about that which he should know the truth. We of course assured him that what he thought was "manufactured comb honey," did not exist, and that what he saw in market was very likely bought from some country bee-keeper, who knew as little about the price and value of honey, as our customer knew about the *making* of honey. We also gave him a copy of the BEE JOURNAL, for July 13, containing the editorial "showing up" the Philadelphia *Record's* misrepresentation of our pursuit.

Intelligent bee-keepers have an important work to perform, in the the line of educating people about honey and its production. Let all who desire to see the pursuit of bee-keeping occupy its proper position among the honorable industries of the world, do everything they can to educate the masses—not only to the *use* of their wholesome product, but to a clear understanding of the *manner* of its production.

Mr. Charles Dadant gave us a call a few days ago. He was on his way to Northern Wisconsin, with his wife, where he expects to stay a few weeks, in order to escape the usual "hay-fever," which affects him at home during the late summer.

His articulation, together with his foreign accent, make it very difficult to be understood by ordinary persons, though we had no difficulty in that direction. He illustrated this by telling us a good joke on himself, which however makes it necessary to hear him speak to get the *full force* of the "pleasantry."

Soon after he came to this country he went some distance away from his home at Hamilton, Ills., and, upon returning, became confused and lost his way. He met several persons and enquired the way to Hamilton (which he pronounced Ah-mill-tone, emphasizing the "mill") They all, with one accord, declared that they did not know where it was—though they were within a few miles of the place. He surmised that they did not understand him; and when very near to the place he sought, he met another man and made the same inquiry and received the same reply. He then thought of an expedient—he *wrote* the name of the town he sought, and handed it to the man, who exclaimed, "Oh! yes, Hamilton; that is just a mile over there," pointing to a road leading to the village.

He seemed to relish the repetition of the story, for he is full of humor and pleasantries.

His great learning and scientific knowledge show him to be far above "the million" in this particular, but his natural good nature and simplicity make him friendly and thoroughly companionable.

We hope he may spend a very pleasant month in the North, and return with improved health and vigor.

Blackberry Blossoms and Bees.

From a thicket in the corner of a zig-zag fence,
Where the succulent pokeberry stalks up-rear,
With the sassafras and sumach in a wild growth dense,
The blackberry blossoms through the brown rails peer,
With dewdrops shining on their long, white sprays,
Where the yellow bee buzzes and the redbird flies,
They marvel at the world and its new-found ways,
With innocent wonder in their wild, sweet eyes.

Magnolias are white,
And roses are bright,
An many there be that love them;
But with dew-besprinkled faces
And wildwood graces,
Oh, the blackberry blossoms are above them.

When the pine boughs are swinging in the soft May breeze,
And honey-bees are boasting of their spring-tide gain;
And the mockbird is singing out his happiest glees,
To the cotton-tailed rabbit in the end of the lane;
They lean their faces on the moss-grown rails
And listen to the melody the mock-bird weaves;
While the lizards go a-darting with their trembling tails
Like slim, long shuttles through the last year's leaves.

Chrysanthemums are fair,
And orchids are rare,
And many there be that love them;
But with dew-besprinkled faces
And wildwood graces,
Oh, the blackberry blossoms are above them.

—*Samuel Minturn Peck.*

Swarming.—A correspondent having noticed query No. 650, on page 534, asking what would be the next economic invention, replies as follows:

In answer to queries, I have it perfected now. It is a "swarming attachment," and can be constructed and attached to any hive, at a cost of from 25 to 50c. each. It not only makes it absolutely impossible for a swarm to abscond, but it will actually hive the bees in a new or empty hive on any stand the apiarist may desire, when there are no obstructions between the two hives. Or it will conduct the swarm to a convenient place to hive them, settle them in the shade and hold thim there until the apiarist can hive them at his convenience.

In answer to the 5th sub-question, let me say that I insist on having all the honor and glory attached to being the inventor of the first swarm-hiver and controller.

I am perfectly willing that this self-hiver shall be tested and used for a whole season before I receive a single cent for it; and I am satisfied no apiarist will do without it after trying it once.

Now, I propose that the bee-keeping fraternity pledge me $1,000, due one year from this date, providing my invention is a success in the hands of a majority of the bee-keepers. If it is not a success, I do not even want a "Thank you, sir!"

As soon as enough reliable bee-keepers pledge $1, $5, $10, or $20 to raise the whole amount to $1,000, a description of it and directions for using it will be furnished for publication, and a complete attachment will be furnished the editor, to have it engraved and make it plain for everybody. It is just the thing for Sunday; you will find the new swarms just where you leave them when you get home from church; and in out apiaries, there will be no more watching for swarms.

A "Pound" to Imprison Bees.—The New York *Press* of Aug. 6, contained a very amusing article on "Will they Tag the Bees?" and putting them in the "pound" for trespassing, by visiting the flowers in a neighbor's fields. It was sent to us by Mr. Jas. McNeill, Hudson, N. Y., and will be read with great interest. It reads thus:

WILL THEY TAG THE BEES? — The recently-reported decision of the General Term of the Supreme Court in the central part of the State, declaring it trespass for honey-bees to go upon lands not belonging to their keeper, is enough to make the late Mr. Canute, King of Britain, turn in his grave with bones green with envy.

Is each bee to have a little tag fastened around its waist by a delicate little wire? or are bee-collars of brass to be a staple article of Central New York manufacture? And will the statute gravely enact that "any bee found roaming at large or caught trespassing outside on the flowers of any person not its owner, will be put in the pound until redeemed by the payment of one dime?"

In default of payment of the dime by the owner, said owner being presumably notified by the publication, through advertisement in the local newspapers, of the number found on the bee's tag or collar, the bee will probably be put up at auction and sold to the highest bidder. This will require the creation of several local offices, and a bee-pound will be a necessary annex to the office of every country justice of the peace.

It is the solemn duty of the *Press* to protest against this circumscription of the liberties of the bee. Had the bees of ancient Greece been numbered, registered and tagged, they would never have tried to suck honey from Zeuxis' painted flowers or alighted on the lips of Xenophon. Had the bees of Merrie England worn collars in the days of Dr. Watts, they would never have inspired that classical lyric of our childhood, "How doth the little busy bee," etc; for the doctor would have seen that the bee was a slave and a creature of circumstauce, busy only because it had to be, and he would never have held it up for admiration as a model being. The General Term of the Supreme Court should go to the bee, consider her ways and be wise.

The *Press* is right. The General Term of the Supreme Court should learn *wisdom* from the bees. When at home they defend their domiciles, but when roaming around in search for that which Nature has provided for their sustenance, they are timid, and never volunteer an attack. The Court misjudges them and condemns them without evidence, except that which comes from prejudice and malice.

The Erie County, New York, Bee-Keepers' Society will hold a meeting on September 5, during the first week of the International Exposition. It will be a good time for all the bee-keepers of that region in the United States and Canada, to turn out and see the exposition, and meet and get acquainted with each other. Dr. A. B. Mason is to judge the Honey and Apiarian department. The cash premiums in the Bee and Honey Department amount to over $400, besides medals and diplomas.

Eating Five Pounds of honey at one sitting, is the sweet feat performed by a man named Kirkland, of Florida.

The Golded-Rod in Maine.—Mr. L. F. Abbott, editor of the Lewiston, Maine, *Journal*, writes about the season, the national flower, and the crop of honey in Maine, in this language, to the *Rural Home*. He says:

It is evident that while the bee-keeper has had a fairly good season to build up his apiary, the surplus crop of white honey will be much less than the opening spring gave hopes that it might be.

In parts of the State the apiarist has a reserve to fall back upon for a winter's supply for the bees. This is the golden-rod yield—the national flower, by the way, let us hope—which in this section is a bountiful one.

Already the beautiful golden corymbs of the earlier blooming species are tempting the bees to sip the nectar which this flower so abundantly yields up to the last of October in some seasons. Golden-rod yields pollen abundantly as well as honey, and from this circumstance and the pollen adhering to bodies and legs of the bees when gathering nectar from the flowers of golden-rod, a yellow tinge is imparted to the combs from the bees passing frequently over them. Golden-rod honey is rather dark in color, an amber hue, quite handsome when extracted and put up in clear glass jars.

The texture of well-ripened golden-rod honey is not quite equal to clover, but thicker than the average of what is denominated the yield from fruit bloom—the product of orchards and gardens.

Golden-rod honey soon granulates if exposed to the air. For this reason, all uncapped honey, whether in sections or brood-frames, when removed from the hives, should be extracted from the combs. When capped in brood-frames and kept till the following summer a large part will be found to have become granulated. For this reason it is best to dispose of golden-rod honey before it gets many moths old.

The outlook, taking the country over, is far less than an average crop of honey. This with other things will have an effect upon the market price.

The market was never cleaned up better of old stock than at the present time, and the short supply last year improved the price somewhat, and there is no reason that the price should be lowered. At any rate honey producers should not be in a hurry about making concessions to an empty market, until the returns are all in and we know what the crop is.

Settling of Swarms, etc.—In a recent number of the *Prairie Farmer* we find the following paragraphs in regard to swarming:

All this fuss and feathers, rattling a dish-pan and key, to settle bees, is of no use, unless it eases the feelings of the operator. The Creator evidently intended bees for the use of man, and implanted in them the instinct of clustering near to the hive from which they issued. I had a swarm remain clustered over night during a cold rain. This clustering gives the person an opportunity of putting them into a hive, and keeping them, and it is the same in all parts of the world.

"When a swarm issues, does the queen come out first?" I caught four out of six queens that issued one forenoon. Half of the swarm, apparently, would be out before the queen; in several instances she came out so late that I had despaired of seeing her. I am of the opinion that the workers rule the colony, and not the queen. If they miss her, they return, as she is the mother-bee, and when they swarm, they have not the means to rear another.

SUMMER.

But who the melodies of morn can tell?
The wild brook babbling down the mountain's side;
The lowing herd, the sheep-fold's simple bell;
The pipe of early shepherd dim descried
In the lone valley, echoing far and wide;
The clamorous horn along the cliffs above;
The hollow murmur of the ocean tide;
The hum of *bees*: the linnet's lay of love;
And the full choir that walks the universal grove.
—*Beattie.*

QUERIES and REPLIES.

Is the Preference for Italian Bees General?

Written for the American Bee Journal

Query 652.—1. Do bee-keepers in general deem it profitable to keep the apiary stocked with pure Italian bees? 2. Is not their gentleness, and consequent easier manipulation, the chief reasons for desiring them?—Mich.

I so prefer.—G. M. DOOLITTLE.

1. Yes. 2. No.—A. B. MASON.

1. I think so. 2. Hardly. — C. C. MILLER.

1. I think not. 2. It is but one reason—H. D. CUTTING.

1. I think not. 2. Yes, I so believe, together with their color.—R. L. TAYLOR.

1. Yes. 2. And honey-harvesting qualities, with their greater resistance to moths and robbers.—DADANT & SON.

1. They do. 2. Not wholly—they are better honey-gatherers.—J. P. H. BROWN.

1. I hardly think so. 2. I think that they are superior; but the amiability is the main point.—A. J. COOK.

I guess the testimony is about equally divided; there are many smart bee-keepers (who are right), on both sides of the fence. My experience has always been in favor of the pure Italians.—WILL M. BARNUM.

1. Yes, or at least as nearly as the surroundings will admit. 2. No more so than their business qualities.—J. M. HAMBAUGH.

1. Yes, as far as I know. 2. Yes, partly so; but we can add, for their superiority in every other respect.—P. L. VIALLON.

1. Yes. 2. No. They are more profitable, and can better protect their combs against the moth. — MRS. L. HARRISON.

1. Yes. 2. I think they are kept more for their honey-gathering qualities than their gentleness or quietness.—MAHALA B. CHADDOCK.

1. I think not. 2. Yes, undoubtedly a good reason, too, especially when they are equal to the Germans in most other respects.—J. M. SHUCK.

1. I do not know what bee-keepers in general think. As to honey-gathering, I have found bees of mixed blood quite equal to pure ones. The gentleness of pure Italian bees is one of their most desirable qualities.—M. MAHIN.

1. It would seem so, but it is my opinion that when crossed with other races, greater practical results may be obtained. 2. No; I think that they are considered more beautiful and attractive than the dark races.—G. L. TINKER.

1. As a rule, I think they do. 2. Not by any means; they posess many other qualities to recommend them, among which is that of fighting moth-worms, which they will not allow to remain in their hives.—J. E. POND.

I like the Italians for gentleness, but I do not like the color of their white comb honey. The whitest and cleanest of propolis is produced by Carniolans. I aim to increase from the most thrifty bees, rather than pure blood.—C. H. DIBBERN.

I do not know; but I do know that few do it. I can speak for myself, and say "No;" besides there is need of having crosses and any less gentle than the purest of any race, provided the apiary is properly handled. Good "hybrids" are just as easily handled as any bees on earth.—JAMES HEDDON.

1. I do not know, as I am not acquainted with the practice of any considerable number of the great "army." 2. I presume that is one reason for desiring them; but if that were their only recommend, I believe that "bee-keepers in general" would take a few stings for the sake of the "filthy lucre" which bees bred for business bring.—EUGENE SECOR.

1. It is not very easy to know or say what the "general" feeling is on this subject. I know that a great many apiarists deem it profitable to keep and work Italian bees in preference to any other race of bees, or any mixed race or races. But as the first crosses between the Italians and the black bees make good workers, very many honey-producers are content to tolerate the Italian race in a mixed state. I have found it profitable to keep pure Italian bees, though it has required continual watchfulness, and I have never had a visitor to see my apiary, that was not more than pleased with the sight of a pure Italian apiary.—G. W. DEMAREE.

1. The opinions of "bee-keepers in general" are very much mixed, and really prove nothing, except that they generally disagree about it. 2. Their qualities of industry and hardihood, coupled with their beauty and docility, are their chief recommendations.—THE EDITOR.

CORRESPONDENCE.

HONEY-SECTIONS.

What was the Origin of the Honey-Section?

Written for the American Bee Journal
BY L. C. WHITING.

In Vol. II, page 110, of the AMERICAN BEE JOURNAL, is an article written by Bradlow and copied from *Beinenzeitung*, describing a frame like those of the body of the hive, but used in the super in place of boxes. Section-boxes were simply an improvement on these frames.

Which was first will be hard to find out. Vol. III, page 114, tells us that Jas. McMullen put frames in his boxes and reduced the depth to 6½ inches. In Vol. III, page 150, T. F. Bingham speaks of the McMullen frame "as a link in the long chain of facts, obtained accidentally and by experiment in various parts of the country, and is of the greatest importance."

Vol. III, page 155, in an article signed A. Novice; the writer speaks of these frames, as though they were not yet suitable for marketing honey.

Vol. III, page 218, tells us that Giles B. Avery makes his boxes to contain nine small frames, four of which just fill one large frame in the hive.

In 1874, Baker & Dicer advertised their dovetailed sectional-honey-box, and offered $500 reward for any box that would beat it. The sections were 6x6x2, and were held together by pasting paper over the sections, making a box long enough to cover the hive, with wooden separators and glass ends. These were the first dovetailed sections brought to my notice.

About this time Capt. J. E. Hetherington sent 25,000 pounds of section-honey to market, glassed on both sides of each section. He had his section patented with a view of controling the market of honey put up in this shape. The frame was 6x6x2.

The Harbison frames, 5x6½x2 inches, were first mentioned in the market reports of 1874. Harbison's sections were nailed together, as were most of the sections up to this date.

Other bee-keepers were improving their way of making boxes. H. Alley made a box to hold two pounds. Manum's dovetailed sections, made of white-popular, soon made their appearance. Up to this time a large portion of the honey sent to market was put up in boxes holding from 4 to 40 pounds. The V-grooved section followed the basket splint section, as the dovetailed section followed the frame.

The foregoing information is from the early volumes of the AMERICAN BEE JOURNAL. Other papers may add more light. It was a surprise to me to see how little was said in regard to these important improvements.

Other problems that we call new today, were advocated fifteen or twenty years ago.

East Saginaw, Mich.

MILK-WEED.

Bees Loaded with Pollen Masses from It.

From the Farm, Stock and Home.

Chas. Koonze, of Faribault County, Minnesota, writes the Editor as follows:

Can you tell me through your paper what is wrong with my bees? They have done splendidly till the last few days; they now seem entirely engaged in fighting, and thinking that robbers were bothering them, I reduced the size of their entrance, and in so doing I noticed the bees that they were at war with, had peculiar legs. Catching a few, and picking up a few dead ones, and putting them under a magnifier, I saw their legs seemed loaded with what appeared to be the eggs of some insect. I send you a box by mail, enclosing a few bees, and also some dirt which I picked up in front of the alighting-board. Give a remedy if you can, and oblige.

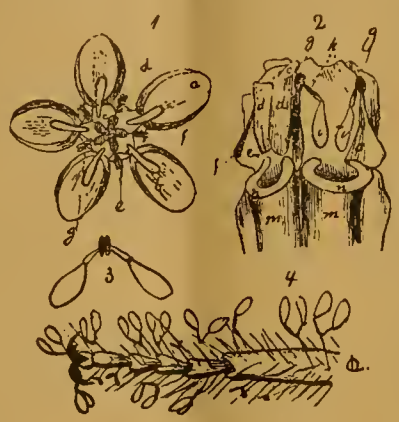
Prof. N. W. McLain, director of the Minnesota Agricultural Experiment Station, by request, replies as follows:

The bees sent are loaded with pollen masses from milk-weed, and the dirt accompanying is chiefly composed of the same material. The pollinia and attaching bands often accumulate on the feet and hairs of the legs of the bees to such an extent as to render them helpless. The efforts of the bees in assisting their mates to extricate themselves was probably mistaken by your correspondent for fighting. The strength and efficiency of a colony is often seriously injured from this cause. The remedy is to destroy the milk-weeds within reach of the bees.

I have asked Dr. Luggar, entomologist of the Station, to make a drawing and write a short explanation of how this mishap befalls the bees when they are seeking for nectar, and also performing the function of fertilizing the flowers. His reply is submitted herewith:

ASCLEPIAS AND BEES.—There are few genera of plants which rival the orchids in the complexity of their perfect adaptation to insect visitors. The species of our common milk-weeds (*Asclepias*) belong to such genera, but their mechanism is so complex that it is impossible to describe its adaptation to the purpose of forcing insects to fertilize the flowers, without giving at the same time some illustrations. To understand the *modus operandi* the readers should pick to pieces one of these flowers and thus learn it.

The two ovaries are surrounded by a flesh column (Fig. 2, *m*), and covered by a thick, fleshy disk, and they are only capable of fecundation at five stigmatic spots close beneath the lower border of the disk (Fig. I, *o*). The column, which really consists of the united staminal filaments, bears at its



Asclepias or Milk-Weed.

upper end five anthers. The anthers lie close around the stigma-disk; each of them lodges two flattened pollen-masses (Fig. 2 *i*, and 3) in two pouches, which are open internally, and are indicated externally by slight swellings (Fig. 2, *d*).

A thin membraneous process of the anther (Fig. 1, *c*) rests upon the top of the stigma-disk, and on each side the anther is produced into a triangular membraneous expansion or wing (Fig. 1, *c*), which stands out perpendicular to the column close to the corresponding process of the adjacent anther.

Between the two adjacent processes of each pair of anthers, there is left only a very narrow slit, which is distinctly wider at the lower end (Fig. 2, *f*). The slit leads into an elongated space which we may call the stigmatic chamber (Fig. 2, *o*), for about the middle of its vertical height the stigma is exposed. At the upper end of the slit, visible from the outside, is a bright, black body of regular shape (Fig. 1, *g* and Fig. 2, *g*), which is seen on closer examination to be a thin, hard, horny lamina. The sides are bent forward for its whole length so that their edges lie close together, and in the middle of the lower border is a wedge-shaped slit. To this lamina (*g*) the two adjacent pollinia of 2 neighboring anthers are attached by bands which lie hidden beneath the anthers (Fig. 2, *h* and Fig. 3). The upper end of the column carries, besides the five anthers, five hollow, fleshy organs, which secrete a large quantity of nectar.

This singular apparatus acts in the following way: Insects, (bees, wasps and flies) in search of honey, attracted by the sweet scent of the flower, slip upon the smooth parts of the flower until a foot enters the wide inferior part of the slit, in which at least it gets a firm hold. When the insect tries to draw its foot out, in order to proceed further, the diverging claws are caught by the opposed edges of the anther-wings, and guided upwards in the slit, so that one or the other of the two claws is brought without fail into the notch at the lower border of the black lamina (*g*) and there held fast. If the insect now draws its foot forcibly out, it brings with it *g*, the two pollina (*i*) attached to it by their retinacula (*h*).

The pollinia stand wide apart when they are extracted; but the retinacula twist inwards as they dry, bringing the pollinia so close together that they may easily be introduced into another slit. As the insect moves on over the flowers, its foot bearing the pollinia slips into the lower part of a slit of another flower; and this time, as the leg is drawn up, the pollinia are left in the stigmatic chamber opposite to the stigma, since the slit is too narrow to admit of their further passage upwards; and the insect, freeing its foot by a violent pull, snaps the retinacula, and so extricates itself. The pollinia are left behind in the stigmatic chamber, while the broken retinacula is carried off still firmly attached to the insect's foot.

The insect continues its visits, and the retinacula attached to its feet now gets fixed in *g*, as the claws did before, and an insect's foot, after repeated visits, may sometimes be bearing many pollen-masses, as seen in Fig. 4.

Frequently insects are unable to withdraw their feet, and they die in the attempt to do so. I have often seen blow-flies, small moths, and even week honey-bees thus captured.

The well known *Physianthus albens* of Australia is a climbing species of milk-weed; it is often sold by gardeners, because it has the habit of catching and holding even large insects in the same manner as our native species of milk-weeds.

OTTO LUGGAR,
Entomologist.

Simmins' Non-Swarming System, and the AMERICAN BEE JOURNAL for one year, for $1.25. The subscription to the BEE JOURNAL may begin now.

DADANT.

The Horticulturists Meet and See the Sights.

The Keokuk *Constitution-Democrat* reports the proceedings of the Warsaw, Ills., Horticultural Society, which was held at the residence of Messrs. Dadant & Son, at Hamilton, Ills., on Aug. 8, 1889, as follows:

At 2 p. m., H. D. Brown, of Hamilton, President of the Society, called the assemblage to order. In the absence of J. T. Johnson, of Warsaw, the Secretary, C. B. Rockwell, of Hamilton, was chosen Secretary *pro tem.*

An informal discussion of the culture and improvement of small fruits followed, and was participated in by Dr. Lyon, John Holt and others. Many points were brought out, and the discussion proved profitable to those interested in the culture of small fruits.

Jonathan Periam, of Chicago, editor of the *Prairie Farmer*, and professor of hygiene in the Chicago verterinary college, was present and delivered a brief address upon monopolies. Mr. Periam has made a study of all subjects pertaining to the occupation of the farmer, and he discussed monopolies from the stand-point of the husbandman. He advocated the idea that farmers should organize for the protection and advancement of their interests, and should have a hand in making the laws of the nation, but should refrain from entering the political field as an organization.

Mr. Periam's address concluded the programme, and the company spent the remainder of the afternoon in inspecting the factory of Dadant & Son.

The Hamilton, Ills., *Press* gives the following concerning the Dadant Comb Foundation Factory:

The Messrs. Dadants are located two miles north of Hamilton, and as some one expressed it, "away back there in the woods;" and under the unpretentious guise of modesty, no one would suspect that the largest apiary in the world was located there. In fact, people who have lived in the neighborhood for years, did not fully realize the magnitude of the enterprise which these gentlemen are carrying on, and had never paid them a visit before. But so well were they treated, that the gates in the future will have to be barred to keep them out.

Mr. Chas. Dadant commenced on this farm, twenty-five years ago, with two colonies of bees; and a small log cabin—not exactly in the lane—constituted the whole establishment. They now have several rooms and buildings, and are crowded in their work. Mr. Dadant said that when he started, the family grumbled a great deal, and thought that if he would not have his nose among the bees so much, and plow his corn more, they would get along better. They don't say that now.

The firm now have over 500 colonies—112 on the home farm, and the balance on the farms of J. P. LaMonte, and Joe Villum, near Warsaw; Julian Lamet, below Warsaw, Louis Sack and Rollin Sherwood, and are ably assisted in the management by Mr. D. W. McDaniels, an intelligent apiarist. But in order to judge of the magnitude of the enterprise, one must see for himself.

Under the guidance of Mr. Chas. Dadant and C. B. Roekwell, we were conducted into a room where the wax is melted, and sheets for comb foundation are prepared. The beeswax is placed in a large tank, and melted by steam; this is put in a boiler, on either side of which sat Parker Hubbard and John Hammond, who dipped boards up and down in the liquid and placed them in a tub of water to partially cool. Leon Saugier, with surprising dexterity, seized the boards, and with a knife, peeled off the wax into beautiful sheets.

In the next room we found the destination of these sheets. A quantity are placed in a tank of warm water to temper them, and then run through a cylinder which makes the indentations of the comb foundation. There are two of these machines, and are operated by D. H. Coffman and Alfred Gilton at one, and Chris. Koelle and Henry Delarue at the other. Harry Curden then takes a pile of sheets, and trims them to the required size, and then places tissue paper between each sheet, and they are then labeled and placed on shelves ready for market. They have sold 57,000 pounds of comb foundation thus far this season, and orders still coming. The business will exceed that of any other year.

We went into the wax-room and saw stacks of huge kegs of wax and a large bin of dirty-looking wax; how it was cleaned was explained by going into the purifying room, where the wax is placed in a tank with water, and melted by steam. The impurities arising are skimmed off, and it is then poured into tin cans containing more water, which separates the remainder of the impurities.

Our wife being with us, made us brave, and we proceeded to the hives and witnessed Mr. McDaniels remove frames of honey from the hives. After removing the top he smoked them freely, and with a bunch of weeds brushed the bees off on the ground, and even took a handful and fondled them for our gratification. It might have been pleasant to him, but we should as soon think of fondling an untamed tiger.

P. Champeau stood ready with a wheelbarrow on which the precious frames were placed and conveyed to the extractor. Mr. Saugier, Sr., took each frame, and with a sharp knife shaved off the wax enclosing the cells, and placed the frame in a large cylinder, and with a few whirls of the handle the honey poured out in a stream through a faucet below, and was caught in a bucket and emptied into a barrel, when the frames were taken out entirely free from honey.

One of the sweetest sights we ever saw, was the seventy-five barrels of honey containing 550 pounds each, the product of the season, thus far.

If our description of this institution has been imperfect, lay it to our ignorance in such matters, and a first visit. Mr. Chas, Dadant has recently revised Langstroth's bee-book, which is a standard authority on bee-culture, and is meeting with a large sale.

After a basket-dinner in a shady grove, the people were called to order by President H. D. Brown, and a report of committees was heard who said that fruit prospects for another year were favorable.

Messrs. Dadant had on the table samples of honey of 1873 and 1889, which showed quite a contrast; and specimens of comb foundation and their apparatus connected with the business. A large number were present from all over the county and Keokuk, in all numbered about 400. The Messrs. Dadants and their assistants did all in their power to make the occasion a pleasant one, and they succeeded most admirably, their efforts being nicely seconded by the Society and the ladies of the Floral Societies.

BEE-NOTES.

Bees Near a Highway—Cross Bees—Fall Honey, etc.

Written for the Prairie Farmer.

BY MRS. L. HARRISON.

Bees should not be placed near a street or driveway. If a person is so situated as to be compelled to keep them in such a place, a high board-fence is quite a protection against trouble; or a row of high trees or a building—in fact anything that will compel them to rise high, when they fly from the hive. When they are thus situated, persons living in the vicinity, would not be aware of colonies near, as they rise up out of the way of mischief.

Cross Bees.—When there has been a good flow of honey, and it suddenly ceases, bees are excited over it, and sometimes are ready to sting anybody or anything that comes in their way. This year, at the close of the basswood harvest, mine attacked a coop of broody hens. Seeing a commotion among these cackling aspirants for motherhood, I divined the cause, and opened the door, when the hens made a "bee-line" for the raspberry bushes. The cat made frantic leaps into the air, with her tail somewhat resembling a rolling pin. When the bees are cross, it is folly to open a hive.

Fall Honey.—This season hives are very populous and bloom is abundant, yet there is no security that there will be a flow of honey. Hot nights and days are necessary for the secretion of nectar, and yet nights continue week after week to be very cold. There has not been a full crop of honey harvested in Peoria county so far, and those who rushed their honey off to the local market, may wish they hadn't, before the season closes.

Feeding Bees.—I have some nuclei that are not well supplied with the needful honey. Hence, I have been giving them the cappings from the extracted honey to clear up. I take out a panful loosely, and set it in the cap of the hive, making a little aperture for the bees to come up through. It is, of course, apparent that no bees gain access to it from the outside, or robbing will be induced. I lately came to grief in this way: I placed a pan of cappings in the top of a hive and failed to shut down the cover closely. Soon the whole apiary was demoralized, robbing and stinging being the order of exercises. I not only got stung myself by the bees, but the whole family heaped reproaches upon me for my carelessness in making the bees so cross.

Peoria, Ills.

HIVES.

A Further Description of the "Ideal" Bee-Hive.

Written for the American Bee Journal

BY J. W. TEFFT.

The extensive correspondence which I am receiving from all sections of the country, shows that thoughtful and earnest bee-keepers—those who desire to make a profit by Apiculture—are desiring and anticipating a radical change in the construction and management of hives. They are still puzzled by the old drawbacks to ease, comfort and success in the management of an apiary.

Many correspondents express approval, whilst others are more conservative, and seek more light; again, a few, having an established pecuniary interest in the manufacture of hives, have not hesitated to condemn before the evidence is all in; hence I deem it wise to continue the description of my "Ideal Hive" and its merits, simply adding that I shall exhibit the hive at the Buffalo International Fair, on Sept. 3 to Sept. 13, and be in attendance to give information and demonstrate the *modus operandi*.

In reply to the editorial caption over my article on page 473, I am firmly convinced that the answer to the query must be in the affirmative. Yes, the "Ideal" hive *has* appeared. Careful tests, by myself and others, have, during the last five years, demonstrated that the mechanical construction, together with the simple method of management adopted and carried out under my improved system, has removed nearly, if not quite, all the difficulties heretofore standing in the way of pleasant and profitable apiculture, minimizing the necessary labor and care, and thus rendering the pursuit an easy and valuable adjunct to the ordinary duties of the apiculturist and horticulturist, as a source of delight and gradifying gain. It is amongst these two classes of the world's laborers, that bee-keeping properly belongs, and it is with them that it will be most firmly established before many years roll by. Apiculture is, as all good bee-keepers know, most fascinating, and peculiarly adapted to the cultured intelligence and instinctive gentleness of our country ladies.

The hive proper, or brood-chamber, will hold twelve frames (20 inches wide inside) together with partition-boards, but six or eight frames are preferably employed, as experience has demonstrated. The frames, separators, and partition-boards, are supported above and below at diagonally opposite corners, rest squarely and firmly in position, and although unattached or secured, no side or pendulum motion is possible—they are virtually fixtures, and can be removed and replaced, individually, with the greatest ease.

I would here remark that when shipping colonies to a distance, it is only necessary to insert a wooden wedge on each side of the brood-nest, between the partition-boards and the hive-walls, to convert the whole into a solid, immovable block.

The whole of the furniture above mentioned, is, when in position, accurately flush with the top edges of the brood-nest, and necessarily maintains the unvarying vertical position.

The middle section of this hive is a simple rim, 11 inches deep, and resting upon a beading outside the brood-chamber. Within the area of this rim is the surplus chamber; the dimensions of the latter permitting a large free-air space all around between it and the internal surface of the rim. This section has two ventilating apertures, one in each side. The free-air space just mentioned, is, in the winter, filled up with suitable packing, such as dry forest leaves or peet-moss.

[By the way, the compositor persists in representing me as advising packing with leaves, peet *or* moss, which is not as intended. The moss grows on a peet foundation, which is its matrix; hence the name "peet-moss," a mercantile commodity used in many large cities as stable bedding, owing to its lightness and moisture-absorbing qualities.]

The whole hive is surrounded by a peaked roof, with about 4½ inches rise, thus adding to the capacity of the free-air space commenced within the middle section. The *ends* of the roof are pierced with ventilating holes, similar to the middle section. All of these holes are protected by wire-cloth.

Bees are "warm-blooded" respiring insects, and consequently require an adequate supply of pure air, and a means of escape of that which has become obnoxious by reason of its deprivation of oxygen in the process of inspiration, and the subject of adequate *ventilation* and *shade* in the construction of bee-hives has largely engaged my thought and consideration for many years. I am convinced that the Ideal presents a solution of the problem, with all its difficulties, real or imagined.

In the effort to render clearly and distinctly a description of any mechanical contrivance, repetition is necessarily unavoidable, and in this regard I am sure that the intelligent reader will not be hypercritical, but allow me to proceed in the best way I can.

Ventilating and Shading Hives.

The scheme or system of ventilation and shade as applied and practically demonstrated in the "Ideal," is simple and efficient, and may be shortly described as follows:

Protection from solar heat is provided by the hive proper, or brood-chamber, by means of the dead-air chambers at the front and rear ends, and at the sides, by a free-air space, bounded by the partition-boards and the side-walls of the hive. The surplus chamber is protected from the same influence by the free-air space within the central section or rim, and this space is uninterruptedly continuous with that bounded and circumscribed by the hollow upper story or peak roof, which is not otherwise occupied; the top of the surplus chamber being flush with the upper margin of the middle section.

Efficient ventilation is provided in the following manner: The external air enters the hive through the bee-entrance at the bottom of the brood-chamber, is diffused throught the shallow space beneath the arrangement of frames, separators and partition-boards, fills the free-air spaces situated laterally between the partition-boards and side-walls of the brood-chamber, and permeates generally upwards through the passage-ways between the frames and separators in the brood-nest and surplus chamber. In these two compartments it is largely deprived of the oxygen, through its inhalation by the bees, and its temperature is increased by the exhalation and the heat of combustion emitted from the bodies of the bees; and being thus, to a large extent, rarefied, it is readily disseminated, throughout the free-air space, previously described as being bounded by the external walls of the surplus chamber and the internal surfaces of the middle section or rim, and of the peak roof.

From this reservoir it makes an easy and continuous escape, aided by the steady atmospheric pressure from below, through the four gauze-covered ventilators above alluded to.

The ingress of the pure air, and the egress of the vitiated, is so unbrokenly and smoothly assured as to preclude of a sudden or irregular displacement, thus avoiding draughts and dangerous alternations of temperature. An equability of temperature, together with an abundant supply of pure air, as demonstrated in this hive, I claim to be a consideration of the highest importance, as under such a condition there need to exist no anxiety in respect to chilled brood, bee-diarrhea or "foul brood." So much of an unsatisfactory character hes been published concerning the last-named scourge, that I hope to be pardoned for yielding to the temptation to repeat the opinion of a medical friend, in answer to my inquiry, some years ago. The doctor wrote thus:

The Cause and Prevention of Foul Brood.

"*Foul-brood*, so-called, is *typhus*, a disease not necessarily introduced into the hive from the outside, but a condition of death and decay most frequently *originating within* the hive, as a necessary consequence of the absence of pure air, and a *theoretical* disregard of correct methods of ventilation and shade. At times the bees are noticed to be very active in fanning at the entrance of their hive; they are not blowing air into the hive, as some learned writers assert, but *are trying to draw the hot air out* of the hive. This is very easily proven by dropping a feather or light piece of paper in front of the opening when it will immediately be blown some distance away.

"During a heated spell of weather a hive becomes so hot inside (no efficient means of ventilation being provided), that a steaming atmosphere laden with detritus and fetid exhalations is the normal condition, the result being that the exposed brood is directly poisoned, whilst that in the capped cells suffers a like fate upon the bursting of the caps, if it has not already been destroyed by the pressure of the confined and expanded air.

"Decomposition is rapid and highly offensive, destroying the product of the hive, disseminating disease throughout the colony, and risking the infection of the whole apiary. Thus, in my opinion, is solved the secret of the *cause* of 'foul brood.' We may well leave the interesting investigation of the *bacillus alvei* to the microscopical experts. If a bee-hive can be constructed in such a form or manner that it can, at all times, be as thoroughly supplied with pure air without draughts, as the most approved dwelling for the use and comfort of man, we may confidently anticipate for our apiaries an immunity from *bee-typhus*, and the disheartening experience of former years with 'foul-brood' will be merely a dim and fading remembrance, and it would certainly be more joyous tidings to apiculturists, to learn that the fearful scourge could be avoided, than to be instructed in any number of methods for curing, disinfecting or destroying."

I make no comment on the doctor's opinion, but there can be no question that the subject of ventilation and shade has not hitherto received the attention it demands. My bees do not desert their hives even on the hottest days, but keep at work right along, simply because the provision for ventilation and shade secures their entire comfort.

Reversing and Uncapping.

On page 427 is a letter from Mrs. Ada Dorsey, in which she says, "Whoever that was that advised reversing a hive and uncapping, ought to have a shaking; for I have just tried it, and lost lots of honey, and several colonies. No more uncapping for me." Now, although reversing and uncapping enter so largely into my method of management, I do not see how she could have been misled by my writings, and therefore I feel safe in hoping that I am not the culprit to whom the shaking should be administered.

Reversing *en bloc* has always been condemned by me as utterly unpractical. It can only result in chagrin, disaster and destruction. If Mrs. Dorsey will try my system of uncapping *at the right moment*, and reversing *each frame singly*, as it presents the proper condition for manipulation, she will derive abundant satisfaction all around; will find full frames of brood, full combs and sections of honey, no spilling of honey or destruction of bees and combs, but everything clean, neat and pleasant. Experience is a rough tutor at times, and I am truly sorry for the lady in her misfortune.

SHADE.

How to Make a Roof for Shading Hives.

Written for the American Bee Journal
BY A. M. VANNOY.

I am not engaged to any very great extent in the apiary, nor do I propose to set myself up for a pattern for others to follow, but I want to say that I have demonstrated to my own satisfaction, that shade of some kind is both desirable and essential to the apiary in this part of Iowa; also for my own use, the portico hive is best. I shade my hives by making roofs of shingles, thus:

On a piece of scantling (2x4 inches is best), lay the shingles, on the 4-inch side of the scantling first, so that the butt (thick) end will be even with the 2-inch side; nail them fast with 4-penny nails: now turn the stock over, and lay the shingles on the 2-inch side, so that the butts will project ½ inch above those on the 4-inch face of the scantling. This makes a very neat "comb" to the roof; nail all fast as before, when you have a cheap, handsome and durable shade, at a nominal cost (not to exceed for everything, including labor, 15 cents per hive).

These roofs protect the hives from rain as well as sunshine, and gives to the apiary a most unique appearance.

When I have no scantling at hand, I take two pieces of boards, say 3 to 6 inches wide (old, broken-up fence-boards are just the thing), and as long as I want my roof (usually 30 inches is enough); nail the boards together like a trough, V-shaped, then nail the shingles to the trough on the outside, letting the butts project as before; also in nailing on the first side, lay the shingles so as to nail to both pieces of the trough, thus breaking the joint made in nailing the trough together.

I have had such roofs now in use for 5 years, and they are good yet. The roof made with the plank fits the hive, and stays on better than those made with the scantling.

The prospects are good for a large crop of honey in southeastern Iowa. Golden-rod is just beginning to show the yellow. White clover is still in bloom. Smart-weed is our best fall honey-plant, in this part of the State,

and there is an abundance of it this season. So you may as well score one for Southeastern Iowa now, for she will "get there," if the frost stays away a reasonable time.

Hedrick, Iowa.

SYSTEMATIC WORK.

Comb and Extracted Honey in the Same Apiary.

Written for the American Rural Home

BY G. M. DOOLITTLE.

Is it well to produce both comb and extracted honey in one apiary, or shall we divide the number of colonies kept, into two yards, working the one for comb honey, and the other for extracted?

This is a question which often enters the minds of those keeping bees, some thinking that both comb and extracted honey production should not be mixed together in one apiary. I see little if any reason why two yards are necessary for a mixed production of honey, therefore I will say a few words why I should produce both in one apiary.

Twenty yeary ago, when I began to keep bees, I had much trouble to get certain colonies to work in boxes, and often after a colony had nearly completed a given number of boxes, they would swarm, leaving the bees in the hive so weak as to numbers that the boxes would remain unfinshed at the end of the season.

I tried cutting out the queen-cells and returning the swarm, but this did little good, for in a few days they would come out again, and thus keep up their swarming till the honey season was over, doing little or nothing in the boxes, as bees having the swarming fever will do little else save preparing to swarm.

As I had no extractor at that time, the only way that I could do away with this state of affairs was to clip off all of the queen-cells while the swarm was out, cage the queen between two combs and return the swarm, leaving the queen thus caged for eight or ten days. At the expiration of this time the colony was looked over and all of the queen-cells again cut off, when the queen was given her liberty.

As nearly one-half of the brood had hatched during this time, there was plenty of empty cells in which she could deposit eggs and as the bee had no larvæ to nurse, the disposition to swarm was broken up, as a rule, and I would get the boxes completed; but it will be noticed that during these eight or ten days, I got little or no honey, as queenless bees and those having the swarming fever, are practically good for nothing as comb builders, and a colony treated as above was about as good as queenless.

The result was that I lost ten days of the best of the honey harvest, during which time a colony not having the swarming fever would store from forty to sixty pounds of honey. This was a serious loss, but not as great as to have the swarm in a separate hive, in which case I would get nothing but the swarm.

After awhile I purchased a honey extractor, when I found I had this swarming mania, of colonies which should be in better business, practically under my control. When a swarm issued as above, I would extract all the honey from the brood-combs while they were out, and clip off the queen-cells, when they would go to work with a will on being returned, losing all desire to swarm.

Here I had a plan that accomplished the desired result without the loss of ten days in my best harvest, besides I obtained extracted honey enough to pay me for my time, while in the other case I received nothing.

Now and then, a colony would not be cured in this way (although nine out of ten would), in which case I would cage the the queen as first given, and wait three or four days instead of nine or ten, when I would extract the honey as above, letting the queen loose, and in this way I never failed in keeping a colooy which had once commenced in the boxes at work on the same.

In case a colony refuses to go into the boxes, all I have to do is to take off the surplus arrangement and substitute an upper story in the shape of a hive full of empty combs. By raising a frame or two of brood from below into this upper story I was thus master of the situation, and colonies determined not to work in boxes were made to produce an equivalent yield of honey by the use of the extractor equal to those which entered the boxes the most readily.

The aim of every person keeping bees should be, to make all colonies produce an equal value of something readily turned into cash, or of a cash value, and I do not know how this can be successfully done except as we work our apiary for both comb and extracted honey.

Again, we often have a larger number of bees than one man can successfully work for comb honey (which means swarms, taking off sections when filled and snow white, by going over the yard once a week, etc.), while by the using of a part of that number for extracted honey, the whole can be handled by one man, thus saving the wages of an assistant, which would become a necessity if all worked for comb honey, or the same number of bees were divided into two yards.

By setting apart, in the spring, a certain number of colonies for extracted honey, and a certain number for comb honey, one man can care for all by tiering up those worked for extracted honey before his time is fully occupied with those to be worked for comb honey, after which little attention need be paid to them, except to add another story, should they become crowded for room.

After the filled sections are all taken off at the close of the season, then these colonies can be attended to by extracting what honey they have to spare, and fixing them for winter. Thus the apiarist can use all of his time to the best possible advantage, and save to himself and his family that which he would pay out to an assistant in case he had the same bees in two separate yards.

From the above (which are the very plans adopted and used at the present time by the writer), I conclude that all will agree that it is the most profitable for the apiarist to work for both comb and extracted honey in the same apiary, rather than to have two separate apiaries, one to be devoted to the production of either kind exclusively.

Borodino, N. Y.

Convention Notices.

☞ The Northwestern Bee-Keepers' Society will hold its annual convention at the Commercial Hotel, corner of Lake and Dearborn Sts., in Chicago, Ills., on **Friday** and **Saturday, Oct. 11th and 12th,** at **9 a.m.** Arrangements have been made with the Hotel for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day for each person. This date occurs during the Exposition, when excursion rates on the railroads will be one fare for the round-trip, good from Oct. 10 to 14, inclusive. There has been a fair crop of honey in the West, and an old-time crowd may be expected at this revival of the Northwestern from its "hibernation."

W. Z. HUTCHINSON, *Sec.*

☞ The fifth semi-annual meeting of the Susquehanna Bee-Keepers' Association will be held at New Milford, Pa., on Saturday, Sept. 14, 1889, at 10 a.m. There will be essays on different subjects, and also a question-box. Bring your wives along, and please invite your neighbors who are interested in bee-keeping, to come with you. If you have anything new, or that would be of interest in any way, of implements or fixtures, bring them, so that all may see them.

H. M. SEELEY, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec. Romney, Ont., Canada.

New Posters for the AMERICAN BEE JOURNAL, printed in two colors, have just been printed, and will be sent free to all who can use them. They are very handsome, and will "set off" an exhibit at Fairs. It will tell Bee-Keepers how to subscribe, for "Subscriptions Received Here" is quite prominent at the bottom.

We will also send sample copies of the BEE JOURNAL, for use at Fairs, if notified a week or ten days in advance where to send them.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Sept. —.—Maine, at Livermore Falls, Me. J. F. Fuller, Sec., Oxford, Me.

Sept. 5.—Erie County, at Buffalo, N. Y. O. L. Hershiser, Cor. Sec., Big Tree Corner, N. Y.

Sept. 14.—Susquehanna Co., at New Milford, Pa. H. M. Seeley, Sec., Harford, Pa.

Oct. 11—12.—Northwestern, at Chicago, Ills. W. Z. Hutchinson, Sec., Flint, Mich.

Dec. 4-6.—International, at Brantford, Ont., Canada. E. F. Holtermann, Sec., Romney, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

California Honey Crop.—J. Few Brown, Winchester, Va., on Aug. 25, 1889, writes:

Our Eastern market price-currents report a very large California honey crop. If their reports are not correct, could the impression they have, or may be trying to create, be counteracted by getting together letters into the American Bee Journal, from the large producers in California? and could you not get such letters from them as early as possible? The crop in this locality, as gathered from the principal producers, will not average more than 20 to 25 pounds per colony.

[We would request each of the honey-producers of California to send us, immediately, a report of their crop, giving the estimate of how it compares with former years.—Ed.]

Symptoms of Foul Brood.—B. F. Sword, Lanark, Ill., on August 24, 1889, writes:

Will you please give a description of foul brood, in the American Bee Journal? I began keeping bees last spring, with two colonies; I had four swarms from the two colonies, but two went off, so that I have left the two old and two young colonies. They have done nothing for me this summer. When I lift the cover from the top of the hive, it smells sour and musty, and the bees are just hanging around, not doing anything. I am just a beginner, and any information will be gladly accepted. I like the Bee Journal, and can hardly wait until it comes.

[Prof. Cook gives the following in his Manual, as symptoms of the disease:

Decline in the prosperity of the colony, because of failure to rear brood. The brood seems to putrefy, becomes "brown and salvy," and gives off a stench which is by no means agreeable, while later the caps are concave instead of convex, and many will have little holes in them. The most decided symptom is the salvy, elastic mass in the brood-cell. With a pin head we never draw forth a larva or pupa, but this brown, stringy mass which afterwards dries down in the cell.

This disease also extends to the mature bees, as well as to the brood. The remedies are salicylic acid, phenol, etc. You should get Mr. Cheshire's pamphlet, if you are interested in that disease, and read it carefully. It can be had at this office for a dime. —Ed.]

Expectations not Realized.—H. C. Gifford, Morris, Ills., on Aug. 24, 1889, writes:

Bees in this locality are doing very poorly. It seems that for the last 5 or 6 weeks they could not get much honey. My crop will fall short of my expectations at least 500 to 800 pounds, but the golden-rod is now in bloom, and they may do well on that, and other fall plants. My vote is for the golden-rod, as our national flower.

Still Working on White Clover—Miss Lucy Jane Sherman, Hanover, Vt., on Aug. 7, 1889, says;

The bees are still working on white clover, as the rains have lengthened the time of blooming. I am still a novice, though I think that I am getting my hand in. I have taken off a little honey, but not much. While they build white comb and gather white honey, and I have room enough, the honey might as well be left in the hive. I prize the Bee Journal highly.

Helping the Union.—B. T. Baldwin, Marion, Ind., on Aug. 21, 1889, writes:

I send $2.00 for the Bee-Keepers' Union. I want to pay my share to have that decision in the "Rich" lawsuit reversed. Our calamity (and it is nothing else, if it stands) is being thoroughly advertised to our enemies. This has been nearly as poor a year for honey as last. We had a terrible drouth until June 10, and after that it was very wet, with cool nights. I will have about 3,000 pounds of extracted and comb honey from 80 colonies, spring count; I have 120 colonies now. I hope that all the bee-keepers will come to the front and help the Union, We might make donations to the Defense Fund for from 25 cents to $25.00, and raise money enough in that way. I am going to try to get every bee-keeper that I see, to help, and hope that every other bee-keeper will do the same.

[Yes, brother Baldwin, that is the way to do it. If the bee-keepers themselves would wake up, we should have enough money to compel everybody to respect our rights. If bee-keepers are willing to be down and give up the fight, by being penurious, then they will suffer for it. Every paper will publish all that can be found against the bees, but it is difficult to get them to publish anything on the other side. —Ed.]

Nameless or Trembling Bee-Disease.—R. S. Russell, of Zionsville, Ind., writes:

I have a recipe for the cure of the "nameless or trembling bee-disease." The disease is not contagious, and usually, I think, caused by a superannuated queen. The recipe is as follows: Remove all combs out of the hive and supply a new hive, or wash clean with brine. Next shake all the bees off the combs about 3 feet in front of the entrance; this will separate the well bees from the tremblers. Sprinkle the combs and brood thoroughly with strong brine, and give the bees the same medicine. Destroy the tremblers, which will remain where you shake them. Give a young queen as soon as possible, and the work is done. This is a sure cure, as I have repeatedly verified for myself and others.

Appeal to the Highest Court.—James Jardine, Ashland, Nebr., on Aug 16, 1889, writes:

I am in favor of the S. W. Rich lawsuit going to the supreme court, and I am willing to pay my share of the expenses, let it be more or less. I also think that if every member in the Union should try to get all bee-keepers that read the Bee Journal or *Gleanings* to join the Union; for all we want is justice, and we have got it every time so far. Now let all work in their localities to get that 500 members. They will come in if we will. If we give it up now, all is lost. We must get every new bee-keeper to understand that all our information about bees comes from bee-periodcials, and lend them papers to read, and they will be sure to come in as subscribers, and supporters of the Union, when they are shown what the Union has done, and

is doing. I do not believe in trying to discourage new bee-keepers in any way, but treat them kindly, and be sure to let them see the excellent books on bee-keeping, and they will see that it takes a good deal of study to know very much about the bee-business.

My bees are doing pretty well now. I have had a good deal of swarming this summer, and still they come. The honey-flow in not very good yet, but the heavy rains that we have had lately have overflowed the river bottoms very badly, where I had lots of sweet clover sown; it killed a good deal of it. I am afraid that it will have to be a pretty poor year if it beats 1887 and 1888, but I look for a good flow of honey yet.

[Yes; we think that the Court of Appeals must decide that question. To do that, we must have 1,000 more members to the Union, whose interest in the pursuit is more than the dollar which the membership costs.—Ed.]

Alfalfa Honey.—Frank Rauchfuss, Denver. Colo., on Aug. 20, 1889, writes:

I have sent you a section of alfalfa honey, which was taken from a colony that was hived on June 30, and has produced 60 one-pound sections of honey up to Aug. 10. During June and July the weather was not very favorable for the bees, as we had strong easterly winds most of the time. Bees are working strong on alfalfa and Rocky Mountain bee-plant now. Take it all together, we will have only a medium honey crop this year.

[Coming so far, and being so small a package, of course the express employes threw it around enough to break the comb, and set it to leaking badly. The honey is nice, clear, thick and white, and very palatable. In fact we know of nothing that is superior to it for table use.—Ed.]

Large vs. Small Hives.—O. R. Hawkins, of Bellport, N. Y., writes:

I fully agree with Mr. Chas. Dadant in his articles about the size of hives. The large hives are the best, most profitable, and cheapest in the long run. A colony in a small hive will be continually casting swarms throughout the summer, and will store very little surplus. A colony in a large hive will always be strong in bees, and will cast only one tremendously strong swarm a year, and then store a good surplus. A small hive is in nowise profitable to to me, or around this neighborhood.

Good Season in Iowa.—Mr. N. Stainінger, Tipton, Iowa, on Aug. 21, 1889, says:

Bees are booming in Iowa, and prospects are now for a full crop of honey in this part of the state. Our usual slack of about 4 to 6 weeks is this year filled up with a heavy flow of honey-dew—not what we like to see, but it comes all the same. We have had a good yield of white honey, and prospects are good for an excellent fall crop. Our market at home is ruined by small bee-keepers, that do not know what honey is worth. They retail nice honey at 10 cents per pound, while I am getting 12½ cents per pound.

Light Honey Crop.—Mr. Robert Carver, Manton, Mich., on Aug. 23, 1889, writes:

The honey crop in this section of the country is very light, this year, likely owing to the cold, dry weather, prevailing north wind, and occasional frost. We have had, in our apiary, an increase of colonies from 148 to 230. We put back nearly all our second swarms. We have no surplus honey yet worth naming, though our bees are mostly in good condition. The weather still holds dry.

Good Yield of Honey.—Geo. W. Flick, Grinnell, Iowa, on Aug. 26, 1889, writes:

I had 4 colonies of bees last spring, and I have taken from colony No. 1, 66 pounds of honey in one pound sections; from No. 2, 66 pounds; from No. 3, 80 pounds, and from No. 4, 120 pounds. I could have done much better, but I could not get sections or foundation, from the last week in June until July 20th, and consequently I lost at least 200 pounds more of honey. I had three swarms about the middle of June, and have 72 one-pound sections on the hive of each one; the sections are all filled and capped, save from 3 to 5 on each hive, and the hive that I took the 120 sections of honey from, has 30 sections more nearly completed now. If any body that lives in town can beat this, I would like to know how he does it. My bees are Italian, and I take care of them, and they pay me tenfold for the care I give them.

Always Mention your Post-Office County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Honey and Beeswax Market.

KANSAS CITY.

HONEY.—It is coming in slowly. We quote: 1-lb. sections of white, 15@16c.; 2-lbs., 14c. Extracted, white, 8@8½c.; dark, 7c.
Aug. 27. HAMBLIN & BEARSS, 514 Walnut St.

PHILADELPHIA.

HONEY.—Prices are not fully established, being a little too early. Only a few shipments have yet arrived, which sold readily as follows: Best white, in 1-lb. sections, 16½c., and 2-lbs., 14c. Off grades generally 1 to 2 cts. less. Extracted, white clover, 8½c.; orange blossom, 7½@8c.; off grades, per gal., 60@70c
BEESWAX.—23½@24½c.
Aug. 15. WALKER & McCORD, 32 & 34 S. Water St.

DENVER.

HONEY.—We quote: New in 1-lb. sections arriving freely at 16@18c.; extracted, 6@8c.
BEESWAX.—18@20c.
Aug. 10. J. M. CLARK COM. CO., 1421 15th St.

CHICAGO.

HONEY.—New honey arriving freely, and all the shipments have been promptly closed out so far. We quote: 1-lb. white clover, according to style of package and appearance, 14@16c. Receipts of extracted increasing: demand light, at 6@8c.
BEESWAX.—25c.
Aug. 1. S. T. FISH & CO., 189 S. Water St.

NEW YORK.

HONEY.—Extracted, California, 7½@8c.; orange bloom, 7½@8c. White clover and basswood, 7½@8c. Common Southern, 65@75c. per gal. Fancy comb, white 1-lbs., 16c.; fair 1-lbs., 14c; 2-lbs., 2c. less.—The New York crop being comparatively small, the Western apiarists will find a good outlet here in the East. As prices this season are about 10 per cent. lower than last season, we expect an active demand.
Aug. 21. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—Coming in freely, but sales are not cisily made at over 15c. for the best, while we are trying to get 16c., and think that later we can get it, as all buy sparingly now. Extracted sells at 6@8c., but chiefly at 7c. for white.
BEESWAX.—25c. R. A. BURNETT,
Aug. 12. 161 South Water St.

DETROIT.

HONEY.—New crop is coming in slowly, and sells at 14@15c. for comb.
BEESWAX.—23c.
Aug. 21. M. H. HUNT, Bell Branch, Mich.

ST. LOUIS.

HONEY.—We quote: Choice white clover comb, 12@12½c.; fair, 10@11c.; dark, 7@8c. Extracted, in barrels, 5@5¾c.; in cans, 6@6½c.
BEESWAX.—24c. for prime.
Aug. 21. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—New comb arriving freely. Demand is fair, although weather is too warm. We quote:—Fancy white 1-lbs., 16c.; 2-lbs., 14c. Fair 1-lbs., 14c.; 2-lbs., 12c. Excellent demand for all kinds of the extracted, as follows: Orange blossom, 7½@8c.; white clover and basswood, 8@8½c. Southern, average quality, per gal., 65@70c.
HILDRETH BROS. & SEGELKEN,
Aug. 21. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—It has arrived freely, but sales are a little slow, at 17@18c. for 1-lbs.; and 2-lbs., 15@17c. Extracted, 8@9c.
BEESWAX.—None on hand.
Aug. 21. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Demand for extracted is fair from manufacturers, and from consumers for table use. Good demand for best qualities of comb honey, while inferior grades find slow sale. It brings 11@15c.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Aug. 21. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—Receipts of comb honey are large, but market slow, at 14@15c. for white 1-lbs., and 13@14c. for 2-lbs. Extracted, white, 7@8c.; dark, 6c.
BEESWAX.—20@25c.
Aug. 22. CLEMONS, CLOON & CO., cor 4th & Walnut.

MILWAUKEE.

HONEY.—Old crop nearly gone, and new begins to appear, the quality being fine. We quote: New white 1-lbs., 15@16c. Extracted, white, in barrels and kegs, 7@8c.; in tin and pails, 7½@8½c.
BEESWAX.—23@28c.
July 16. A. V. BISHOP, 142 W. Water St.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

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Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

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Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

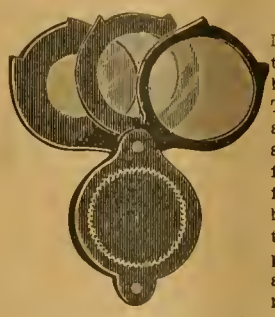
The ILLUSTRATED HOME JOURNAL will be clubbed with the American Bee Journal and both mailed to any address in the United States and Canada, for one year, for **$1.75.** Or both JOURNALS for one year, and Dickens' Works (as described on page 576 of this Journal)—all for **$2.85.** The contents of the September Number—

The Shenandoah Valley—by the Editor ... 183
Illustrations: The Scenery Around Byrne's Island—A Grand View from Bolivar Heights—Harper's Ferry, the Gateway to the Valley—Shenandoah Alum—John Brown's Fort.
A Great Story-Teller ... 187
Illustration: Wilkie Collins.
A Voyage to Greenland ... 188
Illustrations: A Greenland House—A Good Greenland Child—Church of Sukkertoppen.
Rifle Shooting ... 189
Illustrations: Championship Emblem of Army and Navy—The Hilton Trophy.
Lavina Fillmore (Illustrated), 102 Years of Age—by A. E. Richmond ... 190
Sarepta's Lover; or the Oft-Repeated Story that was Interrupted—by Sam Ritteuhouse ... 191
Johnnie and Myrtle Admiring their Pets, (full-page illustration) ... 193, 210
The Big World's Fair—by Tom Masson ... 194
Illustrations: Statue of Columbus—Ferdinand and Isabella, Spain's King and Queen—Ptolemy's Map of the World.
The Teutonic—the Longest Passenger Steamship (Illustrated) ... 195
Venezuela—a Bloodless Revolution ... 196
Illustrations: Rojas-Paul—Blanco—Caracas.
Gen. Greenfell, an Able Commander ... 196
Pittsburg's Exposition ... 197
Illustrations: East Entrance, Main Building—Machinery Hall.
Sioux Reservations Ceded to the United States (Illustrated) ... 197
Memorial Hall of the Grand Army (Illustrated) ... 197
Music—Song, "My Baby's Face" ... 198
"Razzle Dazzle" ... 199
Our Young Folks:—"The Boys that are Needed"—by Geo. W. York ... 200
Is This Your Cat? (Illustration) ... 201, 210
The House-Keeper:—Spending the Evenings at Home—by Lucy Langdon ... 202
Artisan Delegates to Paris (Illustrated) ... 203
Storming the Bastile (Illustrated) ... 204
Wedding Dress of the Princess Louise (Illustrated) ... 205
Mrs. Maybrick (Illustrated) ... 205
The Puzzler (Illustrated), with Key to former Issue ... 206
The Flack Divorce Case (Illustrated) ... 206
Spokane Falls Before the Fire (Illustrated) 206
Biographical—Dr. A. B. Mason (Illustrated) 207
Dr. Oliver Wendell Holmes (Illustrated) ... 208

MISCELLANY:—
Boy Wanted ... 203
Charms and Amulets ... 209
Convincing Evidence ... 203
Creation's Lower Orders ... 190
Cure for Insomnia ... 202
Curious Things of Life ... 195
Daughters of Eve ... 205, 209
Electric Notes ... 196
Getting It Down Fine ... 203
Great Improvement ... 209
His Interest at Stake ... 192
How to Cook Husbands ... 207
Joseph's Pants ... 197
Not a Silent Partner ... 203
Personal Gossip ... 189
Rather Small Potatoes ... 203
Royal Flushes ... 208
Scientific Squibs ... 205
Stray Bits ... 187, 188, 189, 197, 204, 206
Summer Trip ... 192
That was his Name ... 192
The Inquiries had a Purpose ... 203
The Richest Legacy ... 201
Took the Next Step ... 192

POETRY:—
Bad Outlook ... 203
Dandelions ... 191
Earn Your Honors ... 200
Fish Lyrics ... 203
Flowers and Bees ... 188
Golden-Rod ... 202
National Flower ... 210
Only ... 203
Queen of the Flowers ... 194
Two Negatives ... 203

EDITORIAL ITEMS:—
American's Great Future ... 210
Fashion Notes ... 211
Foreign Gossip ... 211
Is This Your Cat? ... 210
Johnnie and Myrtle ... 210
Queer Things Patented ... 211
The Latest in Jewels ... 211



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All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

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Friends, If you are in anyway interested in **BEES or HONEY** we will with pleasure send a sample copy of the **SEMI-MONTHLY GLEANINGS IN BEE-CULTURE,** with a descriptive price-list of latest improvements in **Hives, Honey-Extractors, Comb Foundation, Section Honey-Boxes,** all books and journals, and everything pertaining to Bee-Culture. *Nothing Patented.* Simply send your address *plainly written,* to **A. I. ROOT, Medina, O.**
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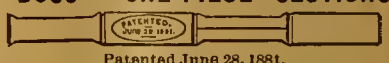

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Mention the American Bee Journal.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Sept. 14, 1889. No. 37.

EDITORIAL BUZZINGS.

Florists Favor the Golden-Rod.—The florists' convention, held at Buffalo, N. Y., on Aug. 22, showed a strong sentiment in favor of the golden-rod as a national flower. We have no doubt but that it will bear off the palm.

In Germany, bee-keepers have just realized the best honey season for many years—this we learn from the Rev. Stephen Roese, who gleans it from letters just received from the "father-land." America sends greetings to Germany, and congratulations upon receiving a satisfactory honey crop, with which America is also blessed.

Now is the Time to Feed if it is necessary, for winter stores, as well as to get the young bees so necessary for safe wintering, with which to stock up the hives before putting them into winter quarters. Feed at night, so as not to induce robbing. Each colony should have from 25 to 30 pounds of the best well-ripened honey for winter stores.

St. Joseph Exposition.—The display in the Bee and Honey Department of this Exposition, this year, is very fine, and will repay any one for visiting the Fair. The Rev. Emerson T. Abbott remarks in a private letter, that "Bee-keepers who attend the Exposition this year, will find a welcome at Nos. 32 to 35 in the Main Hall, also the latest copy of the AMERICAN BEE JOURNAL." Bee-keepers will please make a note of this, and accept the kind invitation of friend Abbott. Other good bee-keepers will have nice exhibits, and the Bee and Honey Show will be an attractive feature of the Exposition, as usual.

The Entomological Club of America met at Toronto, Ontario, on Friday, Aug. 30, 1889. There were about 400 present. A special meeting was held on Wednesday afternoon in Victoria Park.

Prof. A. J. Cook read an account of the depredations of a new kind of furniture insect, which is peculiar, as it not only destroys furniture, but assuages the pangs of hunger on such condiments as red pepper and insect poison. Its one good point is that it has a taste for cigarettes, which it devours with avidity.

Prof. C. M. Weed detailed his experiences with arsenical poisons. He was followed by Prof. A. J. Cook, who also recounted the results of his experiments in the same line.

The following officers for next year were elected by the Club: President, Prof. A. J. Cook, Michigan; Vice-President, Rev. Dr. Bethune, Port Hope, Ont.; Secretary, Rev. F. M. Webster, Indiana.

The above is gleaned from the Toronto *Mail*. We congratulate Prof. A. J. Cook upon the attainment of this new honor. He is "worthy and well qualified" for it. It is a singular coincidence that the editor of the AMERICAN BEE JOURNAL was on the *same day* unanimously elected an officer of the Supreme Council of the American Legion of Honor, which has 63,000 members in North America.

Minnesota State Fair at St. Paul, from Sept. 6 to 14. Mr. L. H. Wilcox is assistant Superintendent of the Honey and Apiarian Department. About $100 are offered in premiums on bees, honey, and implements; then follows a novelty—a special sweepstakes premium of $150 is offered for the "best display of any individual, State, county, or local bee-keeper association, consisting of not less than one ton of honey, five colonies of bees, and all the necessary equipments of a model apiary; also an expert to handle and manipulate bees, extract honey, make and insert foundation, and show the use of modern improvements at any time the superintendent may direct."

This large premium should call out an excellent display, and we hope the hint will be taken by other Fairs next season.

Frank Leslie's Illustrated Newspaper for Sept. 7 is a very striking number. Its interesting pages represent scenes during the Sheepshead Bay racing season, "A Fishing-camp in Maine," "An Evening Procession of Boats on Lake George," and scenes on the grounds of the Hoboken Turtle Club.

Busy as a Bee.—It is said that to collect one pound of honey, 62,000 heads of clover must be drained of their nectar; and to do that requires 3,650,000 visits from the bees. It means something when we say, "Busy as a bee."—*Exchange.*

☞ The bee-keepers of Sangamon and adjoining counties are requested to meet in the Supervisors' Room of the Court House in Springfield, Ills., on Wednesday, Sept. 25, 1889, at 10 a.m., for the purpose of organizing a bee-keepers' association. All are invited.—D. D. Cooper, Geo. F. Robbins, C. E. Yocum.

Brand the Bees.—The papers generally are "poking fun" at the decision of the New York court in the case of S. W. Rich. The *American Analyst* gets off the following:

The general term of the Supreme Court in the central part of this State has decided that it is trespass for honey-bees to go upon lands not belonging to their owner. This may be good law, but the wonder is how this law is to be carried out. It perhaps will offer a new field for the rubber-stamp men to affix the owner's initials to the bees' feet, or Mr. Edison might invent some electric appliance by which trespassing bees could be made to leave their mark; or nature, perhaps, would be sufficient if the bees would notify the owner of the land where the trespass is committed by presenting their "business end" as a sort of card of identification; or the owners of the bees might brand them. Otherwise we cannot see how this decision will help those who are trespassed upon.

The "card of identification" from the "business end" of the bees will no doubt be the most satisfactory and convincing argument of the presence of the winged intruders. The one whose duty it might be to *brand* them would have a picnic—and a red-hot time, at that.

A Dishonorable Transaction stamps the character of the man. Mistakes will happen, but such are always easily rectified if a spark of *honor* remains in the bosom of the person responsible for such. A gentleman in Kansas seeing an advertisement of "Italian Bees for Sale," signed by "A. Meyer, Pekin, Ills.," sent him the price of a colony with sufficient to *prepay* the transportation charges, and received a colony of poor hybrids, and had to pay $2.10 for charges a second time. We wrote to Meyer more than a month ago for an explanation before publishing this. The letter was *not* returned "after 10 days," as requested, but no reply has come to hand. No more money should be entrusted to him until he explains or clears up this transaction.

How Things Have Changed.—Henry Alley, of Wenham, Mass., thus describes the changed aspect of things in his State about the honey crop:

I tell you, friend Newman, things have changed here wonderfully during the past twenty days. Rainy weather has gone by, and our bees have done a heavy business in gathering honey from golden-rod and other fall flowers. All of my hives are solidly full of honey of the best quality, and yet the flow continues. The weather is exactly the reverse of what it was one year ago. It is hot and dry, just the condition all bee-keepers like to have when there is plenty of honey the bees can gather.

The depression in spirits we have experienced for nearly a year has vanished. Every order on our books for queens will be filled on the 7th. We never received more orders for queens than this year, hundreds of them coming from my advertisement in your valuable AMERICAN BEE JOURNAL.

We hope this change is general all through the Eastern States, where heretofore the reports have been so discouraging about the honey crop.

GLEANS OF NEWS.

The World's Fair will be held in some suitable place in 1892 to commemorate the 400th anniversary of the discovery of America. Mr. Aspinwall, upon the presumption that New York will be the place selected, writes us as follows about making a creditable exhibit of bees, honey and apiarian supplies. Such should be done, no matter where it is held, but we imagine that Chicago will very likely put in a strong claim for its location within its spacious borders. But no matter where it is held, let there be a grand apiarian exhibit. Mr. Aspinwall says:

FRIEND NEWMAN:—As there seems to be little doubt that in 1892 there will be a grand World's Fair in New York, would it not be well for our conventions to urge the appointment of some one on the proper committee, to look after our industry? I understand that in 1876 the exhibit of bees, honey and supplies was poor. Do not let this be the case in 1892. We should have the grandest exhibit at that Fair of any ever seen in this or any other country. All it needs is some one to look after the thing here, who has the good of the industry, as a whole, at heart. Let us begin right now to do something, and we will show the world that Wiley is a monstrous calumniator, and that American Bee-Keepers and Supply Dealers lead the world. If the conventions see fit, I will take charge of their recommendations, and will see that they reach the proper authorities, as I am constantly in the city. I have already written the Mayor, asking that some one be appointed to look after the industry, but the recommendations of our conventions will have far greater weight. Yours fraternally,

JOHN ASPINWALL.

Fatal Quarrel.—William Hooper was shot and killed by J. W. Shaw near Highland, Md., Saturday night, Aug. 24. They were farmers. The other day Shaw discovered a bee-hive on the line between his and Hooper's farm. He began taking the honey away when Hooper objected, claiming that the honey was his. Saturday evening the quarrel was renewed at Shaw's house. Hooper's pistol missed fire. Shaw then got his shot-gun and discharged a load of buckshot in Hooper's head.

The above is from the Buffalo *News*. How foolish it is for men to quarrel—yet many do it over very small matters. The above was sent to us by Harry E. Hill, of Titusville, Pa., as an item of news. It might have been a quarrel over a cat, dog, cow, or horse—or even a spoon or dish. It was foolish, very foolish.

Wing-Strokes in a Second.—The following, according to a French physiologist, in regard to the number of wing-strokes made in a second by various insects and birds, will be interesting to all:

The wing of the ordinary house-fly makes 330 strokes in one second; the wing of the bumble-bee, 240; the *honey-bee*, 190; the wing of the wasp, 110; the wing of the dragon-fly, 28; the wing of the sparrow, 13; the wing of the wild duck, 9; the wing of the house-pigeon, 8; and the wing of the osprey, 6.

Educated Bees.—A correspondent in Indiana sends an amusing item taken from the Indianapolis *News*, describing the training of some bees by an "amateur" bee-keeper in Indianapolis. The item reads thus:

Mr. W. C. Bobbs, the amateur apiarist, has succeeded in training a few bees until they have become interesting pets, and their performances are something unusual. Mr. Bobbs lives on Illinois street, near a large conservatory, and thus his bees have the very best of intellectual food from the finest flowers in the land. One large queen-bee of Mr. Bobbs' apiary, has been trained so that she will turn somersaults on a piece of paper, and can furthermore walk a string.

Another bee from the same hive takes a peculiar delight in playing "circus" with a large bloodhound which Mr. Bobbs owns. The busy insect is fond of attaching herself under the dog's collar, and working her "stinger" with great industry.

Mr. Bobbs has learned to charm his bees very successfully, though it required some time, and it was necessary for him to subject himself to many indignities at their "hands." The past week he has been wearing a cold, glittering smile on one side of his face, where the charm did not work very well.

Clipping the Queen's Wing.—A correspondent of one of our exchanges gives his opinion thus, on the subject of clipping the queen's wing, so as to prevent the absconding of the swarm, and consequent loss and annoyance:

I would as soon think of cutting wheat with a sickle, or of threshing it with a flail, as to manage bees without clipping one of the queen's wings. Then as the swarm issues, catch the queen and cage her under a tumbler in the shade. This is done in an instant. Now the bees will invariably return to the old hive, or a new one put in its place; and the hiving is thus done without anxiety or labor. By clipping, we can never lose a colony. The worst that may happen is to lose the queen, which rarely occurs.

Bees and Chickens.—In the *Indiana Farmer* we find the following in regard to keeping chickens in connection with bee-keeping. The testimony is valuable, and is stated as follows:

Mr. Dadant says that he once had an apiary located on the side of a hill, and fenced. He also had at the same time 500 chickens occupying the same inclosure with the bees. He had his hives raised from the ground, and at night the hens brooded their chickens under them. He also taught the chickens to eat drones, by feeding them brood and hatching drones. Furthermore, he has seen a rooster pick them off as they have clustered closely together for mutual protection against their female persecutors, as all bee-keepers have seen them do, until he could swallow no more, then rest a bit, stretch his neck and go for them again—and if corn was thrown to him, he would not notice it.

Fine Portraits of "the American Duchess" (formerly Mrs. Hammersly, of New York) and the Duke of Marlborough, given in connection with an illustrated article on the famous palace and park of Blenheim, are conspicuous among the pictorial features of *Frank Leslie's Popular Monthly* for September. This number of the favorite magazine is unusually strong in short stories and poems.

Ripe-Fruit Beetle.—V. W. Fairbanks, Manchester, N. H., on Sept. 2, 1889, asks the following questions when sending a beetle:

Enclosed find a bug that I do not know. As I was sitting by the side of a colony of bees this bug came crawling from the entrance, and when I touched it, it keeled over on its back and was very hard. When crawling it is ¾ of an inch long. Does it eat honey or bees? What is it? I have 40 colonies of bees, but have had no honey to speak of—there was too much wet weather.

Prof. Cook answers this inquiry as follows:

The beetle is the ripe-fruit beetle—*Euphoria inda*. When flying it looks and sounds like a humble-bee. The grubs work in the earth eating roots. The beetle often does some damage eating into ripe apples, peaches, pears, and even green corn. It very likely was honey hungry, and so entered the bee-hive. It is strange that the bees tolerated it.

Among the Valuable Bulletins prepared in the Office of Experiment Stations of the United States Department of Agriculture, is one, now approaching completion, which will be found of infinite service to the workers in our Experiment Stations, to Agricultural Journalists, Institute Directors, etc. It will be known as Experiment Station Bulletin, No. 2, Part I, and is a very complete digest of the annual reports of some thirty Agricultural Eperiment Stations of the United States for 1888. The special feature of this work is the Index, which is very full and complete, being not only an index to the digest, but practically an index to the reports themselves which are included in the digest.

The work, with the exception of the Index, is already in type, and will soon be completed and ready for distribution. It is issued as Part I, the intention being to include a digest of the reports of the remaining stations in another volume to be known as Part II. This digest work will thereafter be continued periodically, so as to cover all the Experiment Station reports.

Several Eggs in One Cell.—Julius Moerch, of North Indianapolis, Ind., asks the following question:

I have a young Italian queen which lays from 2 to 4 eggs in one cell, at the same time. She does this about once in every six cells. She has plenty of room. What will be the best to do with her?

Either the colony has a drone-laying queen, or a laying-worker, which should be superseded with a good queen, by all means.

Annual Jubilee.—Being an "off year" from political disturbance, prompts the management to extra exertions in making the forthcoming Indiana State Fair, Sept. 23 to 28, excel in every respect. More favorable railroad rates are applied for, to give those at a distance the opportunity of visiting the best Agricultural Fair on the continent, and the Capital City with its many attractions.

THE GOLDEN-ROD.

Written for the Youth's Companion

BY MAHALA B. CHADDOCK.

Yes, let our nation's emblem be
The flower that blooms from sea to sea,
That flings by every roadside free
Its wealth of feathery gold;
That decks the mountains in their pride
And waves along the prairies wide,
And smiles when trailer beauties hide
From autumn's gathering cold.

In fields where happy children meet
And hear the wild bees humming sweet,
And tread the sward with naked feet,
Among the orchards fair;
On banks where scarlet berries grow,
In quiet lanes where lovers go,
Bright bursts of yellow glory show—
The Golden-rod is there.

Where barrens burn, where torrents pour,
Where swells the hill, where sweeps the shore,
Where sparrows flit, where eagles soar,
It shakes its conquering plume;
In the old graveyards, briar-grown,
By cabined poverty, well-known,
Man's friend the Golden-rod alone
Maintains its faithful bloom.

And eyes that weep the year's decay
Smile last to see that flower display
Its fulvid mantle o'er the gray,
While 'neath October's sky;
Its splendor that survives so well,
Flashing from every hill and dell,
Continuous like a sunset spell,
Gilds summer's long good-bye.

Symbol of loyal life, confessed
By North and South, by East and West,
Faith's bravest blossom blazons best
The empire of the free.
And breeze and sunshine, bee and bird,
Will join when patriots speak the word,
And say, "Our floral sign preferred,
The Golden-rod shall be."

Vermont, Ills.

QUERIES and REPLIES.

The Exclusive Production of Comb Honey.

Written for the American Bee Journal

Query 653.—If no more honey were to be extracted, how much would the price of honey in the comb be enhanced?—New York.

Not any.—H. D. CUTTING.

I do not know.—P. L. VIALLON.

Probably none at all.—C. C. MILLER.

None at all, I think.—R. L. TAYLOR.

Not much, if any.—M. MAHIN.

Not one per cent., in my opinion.—J. E. POND.

But very little, if any, in this locality.—A. B. MASON.

I doubt very much if it would affect the price one cent.—J. M. HAMBAUGH.

Very little, I think. I doubt if they compete much.—A. J. COOK.

Too hard a question for me to answer.—J. P. H. BROWN.

It would not be enhanced at all, but would surely drop. It is a fortunate thing for comb-honey producers that so much of the honey crop is extracted, as it supplies different wants, and prevents, to a great extent, an over-supply of comb honey.—C. H. DIBBERN.

Not a particle. Some prefer comb, and others the extracted.—MRS. L. HARRISON.

I do not think that it would better the price more than one-third; and this would be more than depreciated in the great howl which would go up *for* "extracted honey."—WILL M. BARNUM.

It would advance in price, but the supply would also offset the price.—G. L. TINKER.

The extractor has come to stay, so that there is no need of that *if*.—G. M. DOOLITTLE.

If the Emperor of Germany were to buy all the mules in this country, how much would horses be worth?—J. M. SHUCK.

I do not know. Extracted honey, when well ripened, should bring the same price that comb honey does.—MAHALA B. CHADDOCK.

Can you guess? Comb honey will remain a fancy, while extracted will become a staple article, within reach of everybody, rich or poor.—DADANT & SON.

I think that it would be quite a little; but no such condition of affairs will ever take place. When you witness the lethargy with which bee-keepers support their Union, do not think for a moment that they will ever agree upon the kind of honey which all shall, or shall not, produce.—JAMES HEDDON.

If no more honey were extracted, and no more were "strained," and no "imitation honey" were put on the market (imitation extracted I mean, as I do not believe it possible to manufacture comb honey), I think that it would enhance the price 25 per cent. But that millennial time will never come. There is no use to pray for it.—EUGENE SECOR.

Not a cent. Comb honey will always be used as a luxury, and in no very great quantity under any circumstances. The pure article, taken from the comb by means of the honey extractor, is already a *staple* in my home market, and may be made a staple anywhere, if the right man has control of its introduction. One of my customers, the other day, when laying in a supply of the pure article at my honey store-room, remarked that he would "as lief have leather in his stomach, as to have wax there."—G. W. DEMAREE.

It is impossible to ascertain—we may guess all we like. My "guess" would be that the advance in price would be exceedingly small, if any.—THE EDITOR.

CORRESPONDENCE.

MAILING BEES.

Sending Bees by the Pound Through the Mails.

Written as a Private Letter to the Editor

BY G. M. DOOLITTLE.

FRIEND NEWMAN:—You will doubtless remember that I spoke in my book that it was my belief that the day was not far distant when enough bees would be sent in the mails with a queen, so that they would build up into a colony, if sent early in the season. If you do not so remember, you will find the item by turning to page 138 of "Scientific Queen-Rearing." Well, when I wrote that, I hardly thought that the "day" would come so soon as the present; but such is the case, for to-day I am in receipt of one-half pound of bees which came in the mails, all alive but two, and as bright and as lively as "crickets," although through poor directions, they were missent, going to New Jersey, thus keeping them some four or five days en route, instead of two, which would be the reasonable time had they come direct.

Mr. E. L. Pratt, of Marlboro, Mass was the sender, and is, as far as I know, the first one to take advantage of the suggestion which I made.

The cage is three-cornered, or triangular, in shape, to give it strength, and is 11½ inches long, each of the three sides being 4 inches wide. One-and-one-half inches of one end, is partitioned off for candy, thus leaving ten inches for the bees. Equi-distant between the candy and the opposite end are two pieces of ¼-inch stuff, fitted in nicely, to which the sides are nailed, giving it strength enough to sustain all the strain which could ever be brought to bear upon it, thus overcoming any danger of breakage which would let the bees out. Through these partitions are bored numerous three-eighths holes, so that the bees can cling in them and roam through the cage at pleasure. On each of the three sides are three 1⅛-inch holes covered with wire-cloth, which give ample ventilation even in the hottest of weather, while in a cold time the bees can all cluster in the compartment next to the candy, which will allow them to keep warm during frosty nights.

Mr. Pratt says that he considers the cage ample for one pound of bees, and from what I know of the matter, I think that he is right. He writes that if they come all right, he will petition the Government to allow bees by the

pound in the mails. The only thing I see in the way of their granting this is the sugar, which rattles out of the cage into the mail-bags, as it always does from all cages provisioned with the "Good" candy. The use of powdered sugar instead of granulated helps the matter some, on account of that which rattles out of the cages being finer than the other, so that it is not noticed so much; yet I have often feared that even this might possibly be used as an argument to exclude our queens from the mails, and if there is a fear in this direction with queens, it would be multiplied many times, were bees by the pound to be sent; for there is more sugar rattling from this cage of one-half pound of bees than there is from 20 queen-cages.

Mr. P. says that the cage when ready, weighed exactly 8 ounces, and the bees the same number of ounces, when started, yet now the whole weighs only 13 ounces. This loss in weight I apprehend is largely in sugar. There are some among our number who claim that the bees eat the sugar in the "Good" candy, but I am satisfied that this is not so, and believe the same quantity of sand to hold the honey in place would be just as good, as far as the bees are concerned. Be this right or wrong, the fact remains, that I have never received a queen with accompanying bees, but what a pile of sugar would be rattled out on my bench during the few hours that I might happen to leave them there, after their arrival; and the case is the same where I leave them thus before sending out. If this food-matter can be overcome, I do not see but what we are on the road to success.

Will it not be a grand thing for us Northerners, who sometimes lose our bees in wintering, to send South during the month of May, and get bees enough with queens to stock all of our empty combs, for only a few dollars, and these bees come to our very doors, thus saving miles of travel to the express office, saying nothing of heavy express charges? This will give the man living in the remotest parts of the United States, an equal chance with those who live in the very heart of the world.

Well, as I said in my book, I am glad of the privilege of living in this progressive age. The hints contained in the book seem to have waked many up along the different lines which it suggests, for I have many letters speaking in approving terms of the different thoughts which it contains. A day or two ago I received a good letter from that well known bee-keeper of California, Mr. R. Wilkin, in which he rehearses the trials and troubles that he had in rearing queens while in Ohio, some 16 or 20 years ago; telling how well he is succeeding by the plans given in my book, and says: "Like you, I almost stood spell-bound in view of the possibilities the new ideas offered. Accept my gratitude for your success in developing our beloved pursuit."

I take very little credit to myself, for nearly everything the book contains are thoughts which have originated with some one else, yet I must say that it has given me pleasure in being able to so arrange them, after I had collceted them for years, that they are proving a help to others. This would be a very poor world which looked only to the good of self, and I am truly glad that I could be the means of helping some others along, as I have been helped along by others. Many of the very best thoughts which I have been able to secure, have come through the columns of the AMERICAN BEE JOURNAL, and I am glad that your life, Mr. Editor, is spared to make the same so interesting, and keep it at the head of the bee-literature of the day. Truly yours,

G. M. DOOLITTLE.

Borodino, N. Y.

[The foregoing, though written as a private letter to us, contains some of the newest news in the bee-world, and we think it of sufficient importance to present it to our readers, and do so without consulting Bro. Doolittle. The point about the sugar is "well taken," and should be considered in adopting bee-food for use in the mails.—ED.]

SEASONABLE HINTS

About the Care of Honey, and Work in the Apiary.

Written for the City and Country

BY A. H. DUFF.

The honey flow seldom continues longer than July, and in many cases from the first to the middle of the same. Exceptional seasons furnish honey later than this, and sometimes up to the first of September, but we can mostly count on July for closing the heaviest of the crop. At the close of this time we are very liable to omit some very important work in the apiary that may cause heavy damage. The condition of every colony at the close of the honey season should be well examined. If we have allowed of much swarming it is possible that some colonies will be found queenless. In this case robbing is sure to follow. Queenless colonies will not protect their stores as they should do, and will do in if proper condition, and during the dearth of honey they will take advantage of any opportunity that presents itself in this line; hence, the importance of putting them in proper shape, so that they will protect and defend their rights.

If robbing is once commenced in a large apiary, it is very difficult to stop it. It seems that it takes the entire summer and fall before the notion gets out of them to rob.

It is but an easy matter to examine all colonies, and if brood in all stages of development is found, which at the close of the honey season will always be found if the colony has a fertile queen, there will be no danger; but if young brood cannot be found it is evident that there is something wrong, It is true that in such colonies may be found a young queen that, as yet, has not begun to lay. If such a queen is found, we can watch her daily for a few days and ascertain if she is going to prove all right; but it is not necessary to wait more than three or four days. If eggs are not found during this length of time, she should be removed and a fertile queen introduced in her stead.

When such queens are not at hand, we can substitute a comb of brood from some other colony, when they will rear a new queen. All colonies at this time that are entirely destitute of brood should be supplied from other colonies. In this manner we will make them safe, for if they are queenless, the bees will rear a queen from the brood given them. Brood for queen-rearing should not be over three days old, and to make sure that we use brood that is young enough, it is better to have a supply of eggs only, or a frame of brood in all stages, and a quantity of eggs also. The bees will select the proper brood for queens, if thus supplied.

All surplus honey should be removed from the hives at the close of the honey season. If left it will soon become dark and have a solid appearance that will prevent it from bringing a first-class price in the market; and for another reason: the bees cannot protect a large surplus so well, and, unless the hives are very close, robbers will find their way to the honey: hence, we say that all surplus honey should be taken off immediately after the honey flow.

Comb honey should be carefully stored away in a close building so that the bees cannot find it. Honey should not be stored away in cellars or underground repositories of any kind, but should be kept above ground, and should have plenty of light and air and at the same time prevent the bees from entering.

Comb honey can be kept free from ants and other insects by placing it on

tables, the feet of which may set in basins of water and kerosine oil. Ants are very distructive to comb honey, as they will puncture the cappings and destroy its appearance. Extracted honey should not, as yet, be kept in air-tight vessels, as it is still in process of ripening, and if the gas that is produced cannot escape, it will burst the packages; hence, they should have a small opening at least.

Extracted honey may be kept together in any quantity if pretty well ripened; if not, it should be in small quantities. Earthenware and tin are probably the best for keeping extracted honey in, although kegs and barrels can be used, but should first receive a coating of beeswax inside. This can easily be done by pouring into the same melted beeswax, and running it over the surface.

Larned, Kansas.

THE UNION.

Why Do Not More Join the Bee-Keepers' Union?

Written for the American Bee Journal

BY J. E. POND.

It has for a long time been a surprise to myself that the "Union" does not increase in membership faster than it does. Can it be possible that "bee-keepers" are so selfish that they are (or at least the great majority of them) willing to let the few do the work, while they enjoy the benefits?

There is no question but that the Union has done a great work; and its work in the future will only be circumscribed by the smallness of its membership. The work done is national; it strikes at the very root of all troubles that bother us, or dangers that we may fear, and in a way, too, that carries immense weight. Its operations are far reaching; they extend over the whole continent, and if backed up as they ought to be, will strike terror to the hearts of our antagonists.

Even now, with its small numbers, and infinitesimal treasury, the Union is a power in the land, and has already taught many a would-be enemy that it is not safe to trouble its members; that it—the Union—stands as a shield and barrier against all assaults that may be made upon its members. Now, brother bee-keepers, will you not heed the Macedonian cry, and "come over and help us?"

We are small in numbers, yet we have so far proved a perfect "wall of defense" to all who have assailed us. If we could only make the increase in numbers that the quality of our work ought to assure, we should, and would, not only act as a "shield of defense," but by the force of our members, stand as a perpetual menace to our assailants, and drive them from the field by sheer force of members, without being obliged to fire a single gun.

The expense is but small—so small that every bee-keeper can afford it. The advantage gained is immense. It has so proved in the past, and must so continue in the future. Why not, then, aid in the good work, and send in your names till instead of only a "corporal's guard," we shall have enrolled on our books an immense army?

North Attleboro, Mass.

EXPERIENCE

With Bees for a Period of 13 Years.

Written for the American Bee Journal

BY A. C. SANFORD.

I have been in the bee-business for 13 years, starting at first with one colony. My knowledge of bees was at first limited, but being a profound lover of bees, I resolved to know all the mysteries; so I went to work in earnest. My first and second seasons were not very profitable in dollars and cents, but during this time I was studying and practicing.

I think that it was the second season that I purchased an Italian queen, and superseded all native stock. During this time my wife used to say, "Now, Albert, what is the use of your fussing so much time away with the bees? You will never make any thing." But the first thing she new, I had a nice lot of honey, and for it $125.00 in cash; then, of course, she was willing I should spend all the time I wanted to with the bees.

I have taken the AMERICAN BEE JOURNAL for a good many years, and like it very much. I wish every bee-keeper would take at least one good paper, and keep themselves posted.

Since I commenced bee-keeping, I have had as high as 100 colonies. Several winters I lost heavily, and one season I lost all but one colony. I have wintered my bees in an out-door cellar for several seasons, but lost some each time—sometimes half; the fault was not always with the cellar, for sometimes they were short of stores. Experience is the best teacher.

Two seasons I placed them in sheds in rows, bridged the entrances, and buried them in clover chaff and sawdust. One season I covered them in green sawdust, and let it remain till March; I then removed it, packed them with dry clover chaff, and the bees came out in very fine conditon. I have not tried that plan since.

One season I tried wintering my bees out-of-doors without any protection except snow (the previous winter I had lost quite heavily in the out-door cellar); so I concluded to try it once, as I had read about bees being wintered under the snow.

The bees were extra-well provided with honey, but when the next May came, I had only one colony left, and that a weak one. This was the dearest part of my experience. The past two seasons I have wintered them under the kitchen, where I have a very good cellar divided in two parts. I have a stove in one part. If the temperature gets too cool, I raise it by making fire in the opposite room. My loss in this place has been slight. I now have 52 colonies and 6 nuclei. This has been a pretty fair honey season, and the quality of the honey is very fine.

Ono, Wis., Aug. 26, 1889.

LAYING-WORKERS.

How to Avoid the Annoyance of these Pests.

Written for the Home and Farm

BY T. E. HANBURY.

Laying workers, like the moth-worm, are the pests of some bee-keepers. Fortunately, however, for the bee-keeper of the present day, Italian bees have abated the moth-worm nuisance, as they are proof against the latter, but the former has ruined many a fine colony of bees while their keeper, in many instances, was unaware of the cause.

The invention of the movable-frame by the immortal Langstroth, has been a boon to those who delight in keeping bees either for pleasure or profit, and hence, now we can examine any colony of bees in a few minutes. On this account the apiarist, if careful and governed by my advice, laying workers will be the rare exception and not the rule.

When for any cause laying workers have made their appearance, it will be known by the singular appearance of the cells which resemble drone-cells with their protruding caps scattered among the worker-combs. This is because the colony has been destitute of a queen for some time, and some bees (mainly those which were reared in cells contiguous to cells in which queens have been reared) in their great anxiety to rear brood, will commence to lay these eggs, but such eggs will only produce drones, as such laying workers have never been fecundated by a drone.

Unless such an order of things is changed, a fine colony of bees will

soon dwindle down, and become a prey to robbers, or will be ortherwise destroyed. Often if a fertile queen is introduced to such a colony, the laying workers will cease their egg-laying propensities, and will go to work like other bees; but often such laying workers, imagining themselves to be queens, will kill the newly-introduced queen, and then continue to lay their drone-producing eggs. In this case, it would be well to introduce a queen-cell, and if this is torn down, to introduce another, and another, until they accept such a queen-cell.

They may possibly permit such cells to hatch, and the resulting queen will soon become fecundated and commence to lay, and thus the regular order of the colony will be restored. Often, however, they will not allow this, and in such an event there is no alternative but to cage the queen in some other colony, and while thus caged, to smoke both lots of bees thoroughly, and shake the bees from the laying-worker colony in front of the hive in which the queen is caged; and after they have all united, liberate the queen after they have thus been united at least 24 hours.

It may be said, however, as regards this trouble, that "an ounce of prevention is worth a pound of cure," and hence, extra pains should be taken that no colony should be left without a queen very long at a time, say not longer than three or four days. Bees thus left without a queen will not always become infested with laying workers; but in many cases they will, especially in the brood-rearing season, hence, every colony of bees should be frequently looked over to prevent this annoyance, and as soon as a colony is found without a queen, one should be supplied. By being careful in this respect, you will avoid the annoyance of having to deal with these pests.

HONEY-DEW.

Is it a Safe Food for Bees in Winter?—Stung by Bees.

Written for the American Bee Journal

BY F. GREINER.

Buckwheat bloom is now about over, and we have harvested a larger crop of comb honey in sections from this source than usual. But still our bees are booming; the humming that we hear in the morning hours, reminds us of the year 1881, when our bees stored so enormously from linden.

Very few bees come in with pollen in their pollen-baskets, all the many more with distended abdomens, heavily loaded with the sweet found so abundantly on the chestnut leaves—it even drips from them, covering the grass, etc., with the sweetish substance. A light-colored, yellowish, greenish plant-louse, found in great numbers on the underside of the leaves, is probably the cause of the "varnish" on them.

Our bees pass by the golden-rod (which blossoms profusely now), preferring the plant-louse secretion, and not until the latter is dried up, do they return to the former.

I never had any experience with honey-dew before, and I would ask, how can we determine whether or not this class of honey in connection with buckwheat and basswood honey will be wholesome for the bees? Will it insure safe wintering? Who can tell?

Attacked by Bees.

In the New York Weekly *Tribune* of Aug. 28, page 6, we read the following:

ATTACKED BY A SWARM OF BEES.—At Saratoga, Aug. 25, Harry Howlet, a West Milton teamster, met with a terrible experience in Ballston Spa, at a late hour* yesterday. His team and himself were attacked by a large swarm of bees, which stung the horses to death. Howlet, in seeking to rescue his horses, was also attacked and stung into insensibility. At one time it was feared that his injuries would prove fatal, but he had recovered to-day sufficiently to allow of his removal home.

*Are bees in Saratoga like night-hawks?

It would interest us bee-keepers, if one of the readers of the AMERICAN BEE JOURNAL, residing in that vicinity, would give us more particulars of this very singular case.

Naples, N. Y., Aug. 31, 1889.

BEE-DISEASE.

Experience with the "Nameless Bee-Disease."

Written for the American Bee Journal

BY C. THIELMANN.

On page 541, Mr. Alonzo Skinner gives a cure for this alarming bee-disease, but in reading carefully what he says, seemingly he contradicts in the last part what he writes in the first, namely: "Two years ago last April I had one colony affected with the disease; I put about two table-spoonfuls of salt at the entrance, and in a very short time all was right." Then in the last paragraph he writes: "Since that time I have had about 12 colonies affected," etc.

Now a good many bee-kcepers who have that alarming and annoying disease in their apiaries, would like to know whether Mr. Skinner purchased the 12 colonies from some other parties, or did they get the disease from the first that he cured?

I would like to have Mr. S. answer the above question, as it is very important to know if the disease runs in the "blood," or whether it is a parasite; and whether salt and water will cure it, or only check it for a time, and then break out again more than before. This seems to be the case with Mr. Skinner's bees, and if correct, then salt and water will not cure the disease, but only check it for a time. The latter is my experience.

Mr. S. speaks of the salt-and-water cure used by queen-breeders. It appears to me that queen-breeders would do the bee-keepers (at least to me) a far greater favor, not to send out queens from such colonies, than to give their "plan" of curing with salt and water. The disease is now spread all over the United States by the unconsciousness of some of our queen-breeders, and no one seems to have courage enough to make it public. But this is a great wrong, and a detriment to the fraternity. It has already done great damage, and no one has yet actually found a cure for it, or even know of what character it is; at least I have never seen it in print, or heard it privately.

Now I will give my experiments as I noticed them: About four years ago I got a queen from an Eastern breeder, and the next season I noticed some of the black, shiny bees at the hive-entrance, where that queen was introduced, but never heard or read about the disease.

It passed on without fear of anything bad the next season. I have seen more of those shiny bees, but I did not think there was any harm. Then a year ago last spring I sold 11 colonies to a man who started in the bee-business; among them was one colony (unknowingly to me, until some time in July) which had some of the diseased bees. When I visited the man in July, he called my attention to it. I then recollected that I had seen something in the bee-papers, shortly before, about the "nameless bee-disease;" and when I got home, I looked over my apiary, and found three diseased colonies.

From that time on I studied the malady, and made experiments, but to no results of an effective cure.

Last spring I had at one time 7 colonies affected; first I tried salt and water; next, carbolic acid, and both of these remedies checked it, but did not cure any of them.

Next I changed frames of brood and bees; one frame would check it some, but 3, 4 and 5 frames would make the colony well. Then I exchanged queens with healthy colonies, and *vice versa*, and it took a long time (5 or 6 weeks) before I could notice a change where the healthy queens were intro-

duced to diseased colonies, and some of them as yet are not entirely healthy in three months' time.

No diseased bees could be seen for 75 days in the healthy colonies, to which queens were given from diseased colonies; but after 80 days, many were sick, and are so now, after a time of 116 days, and after the colonies have swarmed, and have had young queens over two months.

Next I put some swarms with some diseased colonies without removing the queens; the effect of it was charming. In from 48 to 60 hours, hardly a sick bee could be seen, and a week after, all was healthy. A number of the colonies which were diseased in the spring, got well without doing anything to them, but others became diseased.

The greatest harm is done by the sick bees entering any hive in the apiary, and it is a rare case when the sick bees are killed; for they are only gnawed and bitten constantly, which, it seems, does the sick bees good, that is, they like it, and thereby the healthy colonies are diseased. The sick bees, at a certain stage, have no particular home, and therefore enter any hive.

I have come to the conclusion that the disease runs in the "blood," and is also contagious. Sometimes, when I water the bees, it appears as if they had parasites. If any one of the bee-fraternity knows what the disease is, or knows a cure for it, it would be read with interest, if published.

Theilmanton, Minn.

GOLDEN-ROD.

Is the Golden-Rod a Valuable Honey-Plant?

Written for the American Bee Journal
BY EUGENE SECOR.

I wonder if golden-rod is not greatly overestimated by bee-men. So it seems to me. In this locality I consider it of doubtful value to bee-keepers. I have watched many times to catch a bee upon it, but never more than once or twice have I seen a bee touch it; and then it deserted the flower as though it had made a mistake.

The other day I walked a half mile to a rich bottom where there was an abundance of golden-rod in bloom, but with the usual disappointment. I say disappointment, because I have often wished to see bees working upon it. The name is associated with the poetry of rural life, is rich in sentiment to every bee-keeper, and I have often sought for the fullfillment of cherished hopes and life-long desires—but in vain.

I wonder if it can be that in other localities it does really respond to the kiss of *Apis Mellifica*. I hope so. Or is the barrenness only comparative, and on account of the greater abundance of richer flora, the bees visit other species in preference?

In localities where the golden-rod abounds, there is usually an abundance of yellow ray-flowers, commonly called "sun-flowers," and these I know to be good honey-plants. I am never disappointed when I look for bees reveling in their golden dust, if within range of an apiary.

The Dodder—a Parasite.

In my tramp the other day, searching for golden-rod, I came across a very interesting plant in full bloom. It was dodder—a parasite, well known to botanists, but almost unknown to the common people. It generally grows in low bottom-lands, among a thick growth of other, and over-shadowing plants, where coolness and moisture are more sure to be present. It sends up a slender, golden or silvery thread which twines around a neighboring plant, and fastens itself thereon, getting its nourishment from its protector.

When I found it in bloom, coiling around a wild sun-flower, like an immense worm, and about the color of a ripe white mulberry, it was indeed an interesting plant. I do not know whether it yields honey or pollen, but it is quite fragrant. I brought home specimens which were admired by all who saw them.

Forest City, Iowa.

WINTERING BEES.

Preparing Bees for Wintering in Minnesota.

Written for the American Bee Journal
BY MISS IDA HOUSE.

I will now write that long-promised article on wintering bees in Minnesota, and I hope that it will help some of my brother and sister bee-keepers.

I begin at least by August 1, to look through the hives, to see if all have laying queens, and those that have not, I give laying queens, remove all the combs that contain very much pollen, and put in empty worker-combs, as a queenless colony is apt to fill the combs with pollen, and if left in the hive to winter on, it will be almost certain death to the colony.

Then I mark all colonies "light," that have not sufficient honey to winter on. I also mark those that have too much honey. When the honey-flow is ended I remove all supers and sections, also the oil-cloth cover, which I use in summer, and put on a quilt, which is made by placing a layer of cotton-batting between two sheets of cotton-cloth, and quilted. (I would recommend these quilts to all who winter bees in a cellar; they will pay for themselves the first winter.)

I then go to the hives that I have marked "heavy," take all but about 25 or 30 pounds of honey, and give to the light ones. Be sure to give the bees good honey to winter on. Do not give them honey-dew, unless you wish to get rid of them and know of no other way.

I have the bees all ready for winter before the nights get so cold and frosty as to candy the honey in the hive. We winter our bees in an under-ground cellar, 40 feet long, 7 feet high, and 6 feet wide, with a 6x7 inch ventilator near each end; also, three well-fitting doors, which leaves two dead-air spaces between the bees and the extremely cold weather, with the mercury often 40° below zero, in this northern climate,

When you put the bees into the cellar, remove the cover and entrance-blocks, leaving only the quilt over the hive. Put two blocks (2x2 inches, and the length of the hive), under the hive, then put two more on top, on which to put another hive, and so on until they are five tiers high.

One essential thing is a ½-inch entrance, full width of the hive, and left open; by so doing there will be plenty of upward and lower ventilation, and the bees will not smother or lack in any way for pure air.

The bottom have should be not less than 10 inches from the bottom of the cellar, to allow the foul air, if any, to settle below it, and pass off through the under-ground drain, which should consist of not less than two-inch tiling.

Some may ask how the under-ground drain is made. The easiest way would be to place it underneath the doorway, about one foot below the surface.

Bees placed in a cellar as I have described, with a temperature ranging from 40° to 45°, will winter as safely as by any other method, chaff hive not excepted. The temperature can easily be regulated by a slide in each ventilator—(not a toboggan slide), but a sliding door.

In conclusion I will say, on the first sunny day in April, do not rush to the cellar, and take the bees out, but wait until the season is fairly opened, say from April 15th to the 20th, and then not on a chilly, damp day, or when the wind is blowing at the rate of 60 miles an hour.

Howard, Minn.

ALBINOS.

Claim of Albinoism as Applied to Bees.

Written for the American Bee Journal
BY C. J. ROBINSON.

A claim is set forth in the *Bee-Keepers' Advance* that Albinoism does not exist in the *Apis* family. The claim is an absurdity, and not susceptible of proof. It is unwise for mortals to arrogate competency to write a code of Nature's laws. The claimant wrote: "Can the term 'Albino' be applied to the honey-bee? My own answer to the question is no."

He wrote further: "I have never yet seen any (bees) that were worthy the name"—Albino. He fancies that because *he* has not seen Albino bees, there are none worthy the name. He fancies, too, that he is inspired to teach people the possible and impossibilities of Nature's laws as "applied" to breeding, for he wrote: "If it were possible to produce a race of Albino bees, such bees would be of little value, owing to the fact that they must continually grow weaker and weaker, and finally play out entirely." He failed to mention the period of their "weak and weaker" existence, before they "must" become extinct.

Evidently the claimant knows nothing about the so-called Albino bees, but aimed to prejudice the public against the Albino strain of bees. He asserted that, "In fact Albinoism, wherever found, has always been considered an evidence of weakness." This was designed to "kill" breeders of Albino queens, though the assertion is a bounce instead of having any foundation "in fact."

Albinosim is the opposite of Melanism, and Albinos are generally larger than the normal size of the species, while Melanos are smaller.

I refer readers to Alden's Manifold Cyclopœdia—the latest and best authority: "The opinion that Albinos are distinguished from other men by weakness of body or mind, is completely refuted by facts;" and thus the said assertion is completely refuted.

The term "Albino" takes its derivation from the Latin *Albus*, white. The term is legitimately applied in all cases of preturnatural white or whitish appearance, which whiteness is caused by a non-development of coloring-matter in the skin, and its appendages, rendering the creature white or whitish.

Both Melanism and Albinoism are common to insects, as well as to plants and animals. White cockroaches and crickets have been seen about hives, that were Albinos. White rats, mice and rabbits are kept as pets, and have been bred until the peculiarity—Albinoism—is reproduced in every instance; and why not bees, the same as other insects? We have Albinos among cows, black-birds, squirrels, raccoons, and other animals, as well as the human—more common among negroes.

When the whitish Italian bees were first discovered, they were supposed to be a "sport;" but it is not known whether or not the singular phenomenon of colorings was a new diversion from the common type, or a reversion toward the original type. In type, the Italian bee is a composite—not at all uniform in colorings, nor natural habits—a true mongrel.

Instead of the Albino type being a sport in breeding, the evidences go to prove that they are more nearly than common Italians, thoroughbred types of the original *Apis Mellifica* family.

The Cyprian bees are undoubtedly the nearest akin to the original family of *Apis Mellifica* than any other type, their nativity being in Lower Eygpt. The notion advanced by whimsical writers claiming that beautiful bees are not vigorous, not the equal of darker bees for business, is sheer nonsense, completely refuted by well-known facts.

Mr. A. D. Pike was the first who called attention to the Albino type of bees, which appeared in his apiary, and attracted his attention in 1874. He wrote about his discovery to the lamented A. F. Moon, editor of the *Bee-World*, who seemed to suppose the phenomenon an accidental freak of nature.

In answer to Mr. Moon's editorial comments, Gen. D. L. Adair, of Hawesville, Ky., being a scientist, wrote an article explaining the case, since which the Pike white-type have been known as Albino bees.

The Albino bees are like the Italian, in all respects except color. I have bred Italians ever since I obtained a queen (which was one of the first Italian queens bred in America), but I never reared any of the white, or whitish bees, until I obtained queens of the Pike type. With me, the white, beautiful Albino bees have given as good satisfaction in point of profit, as any of the new or old type of bees. I have found Albinos the most docile of any bees, equally as good gatherers of honey, prolific and hardy.

The Pike Albinos are a strain of Italians, disposed to store their honey away from their brood-nest—a most estimable trait. The founder and able editor of the AMERICAN BEE JOURNAL fancied that beauty and intrinsic worth cannot be united in one animate form, and he applies it to "ladies" as well as bees. Women will never decorate his grave, except he repents and confesses that he sinned against beauty.

Richford, N. Y.

SWARMING.

A Beginner's Experience with Keeping Bees.

Written for the American Bee Journal
BY D. A. MONTAGUE.

In the first place, I had not thought of getting more than one colony of bees, but on approaching a bee-man. of the old style, he proposed to trade his whole apiary (of 11 empty hives and about 40 honey-boxes) for a $20 gasoline stove, and deliver the whole business; so accepting the proposition, here I am with 17 colonies now, and no practical knowledge of the business except what little I have gained this season; and I find the BEE JOURNAL a great help.

The bees themselves have given me a few lessons that will be useful to me in the future.

Of course my bees had it all their own way, as they were all in box-hives, or, what was worse, the Thomas hive. The first swarm issued on June 12—one about 11 a.m., which went back without clustering; then about 2 p.m., there were three or four that issued at once, but they got mixed up, and so bewildered, that they all came back and settled promiscuously over the hives, and under the stand. This was a new feature to me, and I was at a loss to know what to do, and I thought that I would experiment a little. Having a very large hive ready, I proceeded to brush off into a box, nearly half a bushel of bees, and dumped them down in front of this large hive, and they marched in, and made themselves at home; then, as they seemed so well suited, I served some more in the same way, but they went back and came out the next day. Afterwards, the bees were more reasonable, and swarms issued one at a time. I had ordered a few Langstroth hives, but before they arrived, the rush was over, and I got only two swarms into them, and they were late—July 1 and July 11. The hives have 7 frames, and 2 wide frames for sections in the body. *Are 7 frames sufficient to winter a colony?

I transferred one of the old colonies into a Langstroth hive, on Aug. 3, and they are doing well. I gave them full sheets of foundation, but no comb.

The old colonies stored no surplus honey, to speak of, and the new ones

but very little, except those in the Langstroth hives, and the large hive; they are doing well now, and I expect to get five or six times the amount of honey from the 2 colonies in Langstroth hives, as from all the others. They had full sheets of foundation, and starters in the sections.

Buckingham, Ills., Sept. 3, 1889.

[*Yes, if they contain from 25 to 30 pounds of honey.—ED.]

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Sept. —.—Maine, at Livermore Falls, Me.
J. F. Fuller, Sec., Oxford, Me.

Sept. 14.—Susquehanna Co., at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.

Oct. 11—12.—Northwestern, at Chicago, Ills.
W. Z. Hutchinson, Sec., Flint, Mich.

Dec. 4-6.—International, at Brantford, Ont., Canada.
R. F. Holtermann, Sec., Romney, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Fumigating a Room.—J. Van Deusen & Sons, Sprout Brook, N. Y., write as follows:

To fumigate a room or receptacle for surplus honey, get a small kettle with a round bottom, and a piece of heavy tin or iron (old or new) 4 or 5 inches long, bent to fit the bottom of the kettle. Put into the kettle what roll brimstone you need for the size of the room, heat the iron and put it on the brimstone. The iron should be just red in the dark, but not to show by daylight. If too hot, the brimstone flames up too much. A small apiary may have a large dry-goods' box fitted for the purpose, where an ounce or two of brimstone will answer, while a building may require one-half to one or two pounds, as to size of the room.

Splendid Honey-Year.—W. R. Tate, Durant, Miss., on Aug. 30, 1889, says:

Bees are doing well in this section of the country. We have had a splendid honey-year, with very little swarming. The swarming and also the honey-season are about over. We get most of our honey from trees, such as the willow, poplar, persimmon, and others. There is no clover raised in this part of the country. I want to sow some clover and buckwheat next year.

The Season of 1889.—Mr. C. Weckesser, Marshallville, O., on Sept. 2, 1889, writes:

The honey season in this locality has been but little above the past two unfavorable and unprofitable seasons, but we are glad to be relieved of the necessity of feeding for winter, as we have been obliged to do heretofore; for the bees are getting considerable honey at present from smart-weed and other sources, apparently, but we may not expect any surplus from these sources. At present we have very hot and dry weather, but bees are breeding strongly, and we notice white specks on the combs, and think that they will go into winter quarters in fine condition; and perhaps we may have a season soon, that will make up for the stingy yields of the past, if we are prepared for it when it comes.

Glassing Sections—The Crop.—J. W. LeRoy, Rio, Wis., on August 29, 1889, says:

I have always had a home market for my honey until now. Is it necessary to glass the sections? My crop is 3,000 pounds of comb honey, in one and two pound sections, and 1,000 pounds of extracted. The honey crop is nearly double this year, per colony, on an average, but less than a few yeary ago.

[It is not necessary to glass sections of honey for the Western markets, but for Eastern markets it is done to some extent.—ED.]

Excessive Swarming.—Geo. H. Auringer, Bonniwell's Mills, Minn., on Aug. 28, 1889, writes:

It has been very dry here all summer, the creeks and wells are drying up. I am afraid our fall crop of honey will be short, on account of the dry weather. I have 45 colonies now from 17 last spring. All are strong, and one stored over 20 pounds of honey and swarmed on May 22. I have taken 700 pounds of honey in one and two pound sections, and I think that I will get 2,000 pounds. I am selling my honey for 18 cents a pound at the stores; it retails for 20 cents. I take nothing but prime honey and well-filled sections to market, and get the highest price. One swarm came out on May 25, and on July 11 it swarmed, and I put back the new swarm, and cut out the queen-cells; and on July 17 it swarmed again, then I put the new swarm into a new hive, and it came out. Then I put it in with a swarm that was queenless, and the next day they swarmed again. I put them into a 10-frame two story Simplicity hive, for it was a very large swarm, but they swarmed again the next day. I put them back in the same hive, for I did not know what else to do. They stayed, but before the hive was one-third full, they started queen-cells, and I have kept cutting them out ever since. Some were capped over. They are doing well now. Hurrah for the golden-rod for the national flower.

Tobacco and Bees, etc.—P. M. Aldrich, Fairmount, Nebr., on Aug. 24, 1889, writes:

"What killed the bees?" is asked on page 540. I cannot tell, but it was not the tobacco or smoke. I use but very little smoke, and that is mostly tobacco-smoke. Sometimes I smoke the bees pretty heavy, but I never see any bad effects from it. I have often used a cigar-box when hunting bees, and they worked readily in it.

I have had to destroy four swarms, as they were affected with foul-brood. Bees had not held their own as for honey this season, until two weeks ago, but are doing finely now on heart's-ease, or "tanning," as it is called here.

Good Fall Crop Expected.—John Nebel & Son, High Hill, Mo., on Sept. 2, 1889, write:

We have an immense Spanish-needle bloom. It has been very dry here for the past three weeks, so much so that Spanish-needle did not yield much nectar, but for the last two days we have had occasional showers, and we never saw bees work better during the few hours of sunshine that we have between showers. If we could be favored with such a condition of things for a few days longer, we can count on 50 pounds per colony, of fall honey.

Marketing the Honey-Crop, etc.—John Blodget, of Flag Springs, Mo., on Sept. 2, 1889, writes:

I think that I am one of the "lucky bee-men," as I will get 6,000 pounds of honey in one-pound sections, from 30 colonies. I have already 5,000 of the clover honey, and now the heart's-ease is coming in fast. My increase was 42 colonies. Some are selling one-pound sections of honey at 12½ cents, and some as low as 10 cents. These very men are the ones who establish the price in our home market, for us who have 5,000 or 10,000 pounds to sell. It is not all the small bee-keepers, but I understand that one

large producer at Standberry, Mo., is selling at 10 and 11 cents per pound. If the Union would establish the price of honey, I, for one, will join it. I am shipping honey to Kansas City, on commission, rather than take so low a price. I have not sold a pound for less than 15 cents, and I will hold it till I can get my price. I think that we ought to be able to establish the price on our honey. The AMERICAN BEE JOURNAL reaches me every Friday, regularly. It is a welcome visitor, and the music is splendid. Give us some more of it.

Hive-Porticoes.—John Boerstler, Vashon, Wash. Ter., on Aug. 24, 1889, says:

In regard to the portico, I would say that I have tried at least 20 different hives, and I have done away with all except the 2-story Langstroth hive, with the portico; and I think that a hive without a portico is like a house without a porch. Why do they put a porch to a house, if it is not for some use? and why do they put porticoes to the finest building, if they are of no use? I think that a hive without a portico, is like a house without a porch, and I, for one, will never be without a portico to my hives.

Short Crop of Early Honey.—W. H. Graves, New Carlisle, Ind., on Aug. 28, 1889, writes:

The honey crop is very short in this part of the country. My early crop is very small—between 700 and 800 pounds of surplus from 92 colonies. Two colonies became queenless, that I lost, and I only hived 12 swarms this season. They failed to swarm as well as to gather much honey. White clover bloomed profusely, but did not seem to secrete very much honey. Some claim that they have not taken a pound of honey this summer. By appearances, we will have a good fall crop, for I never saw so much golden-rod bloom in my life, as there is this season. If I have any vote on the national flower, I vote for the golden-rod. The AMERCAN BEE JOURNAL is a welcome weekly visitor which never fails to come every week.

Bee-Keeping in North Missouri.—P. P. Collier, Rush Hill, Mo., on Sept. 5, 1889, writes:

The honey in this part of Missouri is not an average crop, by 25 per cent.; but the increase of bees is 30 per cent. above an average. The quality of the honey is better than for years. It was gathered mostly from clover and blue-verbena, and some smart-weed. I had 22 colonies in the spring, sold 18 swarms, put back 12 or 13, and 6 or 8 left for the woods, leaving me now on hand 75 colonies in good condition—the best for years. I have taken about 1,000 pounds of extracted, and between 500 and 700 pounds of comb honey. I am selling it at 15 cents per pound for comb in sections, 12½ cents for broken comb, and 10 cents per pound for extracted honey. We will have but little Spanish-needle honey, owing to continued drouth.

An Aster, etc.—C. W. Conner, Ashton, Iowa, on Sept. 3, 1889, says:

I send a specimen of a weed or plant which is abundant here this dry season, and my bees are working on it yet. What is it? Is it a good honey-plant? It is so dry here now that everything but this plant and the golden-rod is dried up. The golden-rod is abundant here. Bees are doing well.

[It is an aster, and is an excellent honey-producer.—ED.]

Queenless Colonies.—S. R. Norton, Lemont, Ills., on Sept. 3, says:

Please inform me in the BEE JOURNAL, how long a colony would be queenless before a laying worker would take possession.

[If a colony be left queenless, and is without the means of rearing a queen, it will be only a few days before some workers will commence to lay eggs, in a vain endeavor to save the life of the colony.—ED.]

Convention Notices.

☞ The Northwestern Bee-Keepers' Society will hold its annual convention at the Commercial Hotel, corner of Lake and Dearborn Sts., in Chicago, Ills., on **Friday** and **Saturday, Oct. 11th and 12th,** at **9 a.m.** Arrangements have been made with the Hotel for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day for each person. This date occurs during the Exposition, when excursion rates on the railroads will be one fare for the round-trip, good from Oct. 10 to 14, inclusive. There has been a fair crop of honey in the West, and an old-time crowd may be expected at this revival of the Northwestern from its "hibernation."

W. Z. HUTCHINSON, *Sec.*

☞ The fifth semi-annual meeting of the Susquehanna Bee-Keepers' Association will be held at New Milford, Pa., on Saturday, Sept. 14, 1889, at 10 a.m. There will be essays on different subjects, and also a question-box. Bring your wives along, and please invite your neighbors who are interested in bee-keeping, to come with you. If you have anything new, or that would be of interest in any way, of implements or fixtures, bring them, so that all may see them.

H. M. SEELEY, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec. Romney, Ont., Canada.

Honey and Beeswax Market.

KANSAS CITY.

HONEY.—It is coming in slowly. We quote: 1-lb. sections of white, 15@16c.; 2-lbs., 14c. Extracted, white, 8@8½c.; dark, 7c.

Aug. 27. HAMBLIN & BEARSS, 514 Walnut St.

PHILADELPHIA.

HONEY.—That in the comb is now arriving and the demand is increasing accordingly. The outlook is still favorable for good prices for fancy honey.—We quote fancy honey in neat crates as follows: 1-lbs., white, 17@18c.; 2-lbs., 14@15c.; buckwheat 1-lbs. 12@13c.; 2-lbs., 10@11c. Off grades of all kinds generally 1 to 2 cts. less. Extracted, white clover, 8½c.; orange blossom, 7½@8c.; off grades, per gal., 60@70c

BEESWAX.—23½@24½c.

Sep. 5. WALKER & McCORD, 32 & 34 S. Water St.

DENVER.

HONEY.—We quote: New in 1-lb. sections arriving freely at 16@18c.; extracted, 6@8c.

BEESWAX.—18@20c.

Aug. 10. J. M. CLARK COM. CO., 1421 15th St.

NEW YORK.

HONEY.—Extracted, California, 7½@8c.; orange bloom, 7½@8c. White clover and basswood, 7½@8c. Common Southern, 65@75c. per gal. Fancy comb, white 1-lbs., 16c.; fair 1-lbs., 14c.; 2-lbs., 2c. less.—The New York crop being comparatively small, the Western apiarists will find a good outlet here in the East. As prices this season are about 10 per cent. lower than last season, we expect an active demand.

Aug. 21. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—New honey arriving freely, and all the shipments have been promptly closed out so far. We quote: 1-lb. white clover, according to style of package and appearance, 14@16c. Receipts of extracted increasing: demand light, at 6@8c.

BEESWAX.—25c.

Aug. 1. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—Coming in freely, but sales are not eisily made at over 15c. for the best, while we are trying to get 16c., and think that later we can get it, as all buy sparingly now. Extracted sells at 6@8c., but chiefly at 7c. for white.

BEESWAX.—25c. R. A. BURNETT.

Aug. 12. 161 South Water St.

DETROIT.

HONEY.—New crop is coming in slowly, and sells at 14@15c. for comb.

BEESWAX.—23c.

Aug. 21. M. H. HUNT, Bell Branch, Mich.

ST. LOUIS.

HONEY.—We quote: Choice white clover comb, 12@12½c.; fair, 10@11c.; dark, 7@8c. Extracted, in barrels, 5@5¾c.; in cans, 6@6½c.

BEESWAX.—24c. for prime.

Aug. 21. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—New comb arriving freely. Demand is fair, although weather is too warm. We quote:—Fancy white 1-lbs., 16c.; 2-lbs., 14c. Fair 1-lbs., 14c.; 2-lbs., 12c. Excellent demand for all kinds of the extracted, as follows: Orange blossom, 7½@8c.; white clover and basswood, 8@8½c. Southern, average quality, per gal., 65@70c.

HILDRETH BROS. & SEGELKEN,

Aug. 21. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—It has arrived freely, but sales are a little slow, at 17@18c. for 1-lbs.; and 2-lbs., 15@17c. Extracted, 8@9c.

BEESWAX.—None on hand.

Aug. 21. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Demand for extracted is fair from manufacturers, and from consumers for table use. Good demand for best qualities of comb honey, while inferior grades find slow sale. It brings 11@15c.

BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.

Aug. 21. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—Receipts of comb honey are large, but market slow, at 14@15c. for white 1-lbs., and 13@14c. for 2-lbs. Extracted, white, 7@8c.; dark, 6c.

BEESWAX.—20@25c.

Aug. 22. CLEMONS, CLOON & CO., cor 4th & Walnut.

MILWAUKEE.

HONEY.—New crop is coming in and of very fine quality. Demand is fair and values easy. Choice white 1-lbs., 14@15c.; 2nd quality 1-lbs., 12½@14c.; old 1-lbs., 10@12c. Extracted, white, in tins and pails, 8@8½c.; in barrels and kegs, 7@8c.

BEESWAX.—22@25c.

Sep. 5. A. V. BISHOP, 142 W. Water St.

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	Club
The American Bee Journal	1 00...	
and Gleanings in Bee-Culture	2 00....	1 75
Bee-Keepers' Guide	1 50....	1 40
Bee-Keepers' Review	1 50....	1 40
The Apiculturist	1 75....	1 65
Bee-Keepers' Advance	1 50....	1 40
Canadian Bee Journal	2 00....	1 80
Canadian Honey Producer	1 40....	1 30
The 8 above-named papers	5 65....	5 00
and Langstroth Revised (Dadant)	3 00....	2 75
Cook's Manual (old edition)	2 25....	2 00
Doolittle on Queen-Rearing	2 00....	1 75
Bees and Honey (Newman)	2 00....	1 75
Binder for Am. Bee Journal	1 60....	1 50
Dzierzon's Bee-Book (cloth)	3 00....	2 00
Root's A B C of Bee-Culture	2 25....	2 10
Farmer's Account Book	4 00....	2 20
Western World Guide	1 50....	1 30
Heddon's book, "Success,"	1 50..	1 40
A Year Among the Bees	1 75....	1 50
Convention Hand-Book	1 50....	1 30
Weekly Inter-Ocean	2 00....	1 75
How to Propagate Fruit	1 50....	1 25
History of National Society	1 50....	1 25

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Having a Few extra sets of the AMERICAN BEE JOURNAL for the years 1887 and 1888, we will supply both these years, and 1889 and 1890, for $3.00, until all are sold. Or we will send 1888, 1889 and 1890 for $2.50, all by mail, postage paid. These are very valuable, and those who have not yet read them should lose no time in securing them.

The Chicago Convention will be held on **Friday and Saturday, Oct. 11 and 12, 1889.** This change of date has been made, because the Railroad Traffic Association has made a rate of one fare for the round trip from any point within 200 miles of Chicago, good on Oct. 10, and can be used on any train returning after that until Monday, Oct. 14. The first session will be held at 9 o'clock in the morning of Friday, and an adjournment can be had on Saturday afternoon in time for those who may wish to return on that day. Those who can remain over Sunday will have an opportunity of visiting our magnificent churches and cathedrals in the morning and evening, and of taking a pleasant walk in the parks or riding on the boulevards in the afternoon, as their inclination and tastes may lead them.

October is usually a very pleasant month, and this will give an opportunity to many who need a recreation, to take it at a small outlay, and at the same time to "take in" the Bee-Convention. The invitation is full and wide—*Come all who can.*

We Want a Representative at all the Fairs to be held this season. The AMERICAN BEE JOURNAL is the recognized defender of the rights of the bee-keepers, against the attacks of the ignorant and prejudiced. There are thousands who would gladly subscribe to it if it were only brought to their notice, and its claims presented. When making an exhibit, please send for our *Colored Posters* and sample copies, and get up a club. In this way you will not only pay yourself for the trouble, but also aid the pursuit, and its defense all over the country.

Many Good Advertisers invite our readers to send for their descriptive Circulars, etc. It will pay to get these, and see what is for sale, by whom, at what prices, and what things are offered. Every one can learn something in this way. Please always tell advertisers *where* you saw their cards; they like to know, and we like to have them.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: $8.00 per bushel; $2.25 per peck; 25 cents per lb. *White Clover Seed:* $10.00 per bushel; $2.75 per peck; 30 cents per lb. *Melilot or Sweet Clover Seed:* $6.00 per bushel; $1.75 per peck: 20 cents per lb.—by express or freight.

Prang's National Flower is the title of a beautiful pamphlet which contains two colored plates of the two most popular candidates for selection as the National Flower of America. It also has two poems, and a postal card addressed to Messrs. L. Prang & Co., Boston, Mass., with a vote to be filled up for the selection of a National flower. The pamphlet costs 25 cents, and can be obtained at this office.

Subscribers who do not receive this paper promptly, will please notify us at once.

BEST BEES TO WINTER.

From One of the Largest Bee-Keepers In

AMERICA.

DEKALB JUNCTION, N. Y.

"The three Queens you sent me two years ago were

EXTRA GOOD ONES,

exceedingly active, and the

BEST WINTERING BEES I HAVE.

I don't care for Beauty, yet I never saw a Queen you sent out that was not a Beauty.

IRA BARBER."

300 QUEENS

of the **Best Honey-Gathering Strain** we ever had in 30 Years' Experience with THE ITALIANS,

READY TO MAIL

between Sept. 12 and 20.

☞ Pricca: Tested, **$1.50**; Select Tested, **$3.00**; Warranted, **$1.00.**

All are Warranted Pure, and Safe Arrival Guaranteed. Address,

HENRY ALLEY,

37A2t **WENHAM, Essex Co., MASS.**

Mention the American Bee Journal.

FOR SALE.—Italian Bees, $5.00 per Colony. Tested and Untested Italian Queens and Bee-Keepers' Supplies.

Address, **OTTO KLEINOW,**
150 Military Ave., (opposite Fort Wayne),
37A2t DETROIT, MICH.

Mention the American Bee Journal.

FOLDING PAPER BOXES!

THEY hold a Section of Comb Honey each, and are made so as to take the 4¼x4¼ or 5¼x6¼ Sections. Just the thing for retail dealers! Prices: $1 per 100 Boxes, or $8.50 per 1,000. ☞ The bee-keeper's name and address, and the kind of honey, printed on 1,000 or less, for 75 cents extra.

THOS. G. NEWMAN & SON,

923 & 925 W. Madison St., - CHICAGO, ILLS.

$60 SALARY, $40 EXPENSES IN ADVANCE allowed each month. Steady employment at home or traveling. No soliciting Duties delivering and making collections. No Postal Cards. Address with stamp, HAFER & CO., Piqua, O.

Mention the American Bee Journal.

36A26t

TAKE NOTICE!

BEFORE placing your Orders for **SUPPLIES,** write for prices on One-Piece Basswood Sections Bee-Hives, Shipping-Crates, Frames, Foundation, Smokers, etc. Address,

R. H. SCHMIDT & CO.,

25A26t NEW LONDON, Waupaca Co., WIS.

Mention the American Bee Journal.

The Revised Langstroth, and Dadant's Foundation. See advertisement in another column

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Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to

CHARLES F. MUTH & SON,
Cor. Freeman & Central Aves., CINCINNATI, O.

P. S.—Send 10c. for Practical Hints to Bee-Keepers

NEW PEAR, WILDER EARLY.

EARLIEST; best quality; productive; bears every year; no rot at core; beautiful; long keeper; great grower. Send for free colored plate and full particulars. Surplus of Apple-trees for sale—your choice at 10c. each, our choice at 6c. each. Surplus Dwarf Pear, Rhubarb roots, Black Raspberry plants and Ornamental shrubs at low prices. June budded Peach, Apricot and Plum trees, and one-year Apple-trees for mailing, a specialty. Green's 5 books on Fruit-Culture, combined, or Green's "How to Propagate and Grow Fruit," 25c. Catalogue with colored plate, free. Address,

GREEN'S NURSERY CO., Rochester, N. Y.

GLASS PAILS

FOR HONEY.

THESE Pails are made of the best quality of clear flint glass, with a nail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen, ... **$1.60**
" 2 pounds " " **2.00**
" 3 " " **2.50**

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923 & 925 W. Madison St., - CHICAGO, ILLS.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

J. VAN DEUSEN & SONS,

(SOLE MANUFACTURERS),

1Atf SPROUT BROOK, Mont. Co., N. Y.

A POSITIVE FACT!

Queens by Return Mail!

From the Old and Reliable

KNICKERBOCKER BEE-FARM

(Established 1880.)

☞ Circular and Price-List Free.

G. H. KNICKERBOCKER,

27Dtf Box 41 PINE PLAINS, Duch. Co., N. Y.

My 21st Annual Price-List of Italian, Cyprian and Holy-Land Bees, Queens and Nuclei Colonies (a specialty); also Supplies—will be sent to all who send their names and addresses. **H. H. BROWN,**

17Dtf LIGHT STREET, Columbia Co., PA.

RERUM COGNOSCERE CAUSAS,

TO know the Causes of Things is the key to Success in any Industry. If you wish to succeed in the **Bee-Business,** you must read and become acquainted with the most Successful Methods of Bee-Management and Honey-Production.

LANGSTROTH'S WORK,

REVISED BY DADANT,

Contains the result of **practical experience** with Bees. It gives the Physiology of the Bee, with numerous **Quotations** from the latest Scientific Writers, the Description of the **best Hives,** Directions for the Proper Management and Handling of Bees; the most **Practical Methods of Queen-Rearing, Swarming** (Natural and Artificial), with controlling methods; instructions on Establishing Apiaries, Transferring, Shipping, Mailing, Feeding, Wintering; the best methods of producing **Comb and Extracted Honey,** the Handling an Harvesting of Honey, the Making of Comb Foundation, &c., &c.

The instructions for the **Rendering of Beeswax** are alone worth the price of the Book, to many bee-keepers who waste a part of their Wax in Rendering it.

This Book, "the most complete ever published," is shortly to be published in the French, Italian and German Languages, by Practical European Apiarists. It is highly recommended by all publishers of Bee-Literature in the Old World as well as in the New.

Cloth Binding, 550 Pages, 199 Engravings, 19 Full-Page Plates. Gilt front and back. This book is an Ornament to any Library.

Price: By Express, **$1.85.** By Mail, prepaid, **$2.00.** Special prices to Dealers who wish to advertise it in their Circulars.

☞ We also offer for Sale,

40,000 Lbs. of Honey

of our Crop of 1889;

25 Tons of Comb Foundation

Smokers, Bee-Veils of Imported Material, &c. Send for Circular. Address,

CHAS. DADANT & SON,

HAMILTON, Hancock Co., ILLS.

SECTIONS! SECTIONS! SECTIONS!

WE are now offering our No. 1 V-Groove Sections in lots of 500, at $3 per 1,000; No. 2 Sections at $2 per 1,000. For prices on Foundation, Hives, Shipping-Crates, &c., &c., send for Price-List. Address,

J. STAUFFER & SONS,

(Successors to B. J. Miller & Co.,)

31Atf NAPPANEE, IND.

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50 Hybrid Queens,

REARED under the Swarming Impulse—for Sale at 50 cents each.

☞ 12-lb. **Shipping-Cases,** in the flat, no glass—10 for 75 cents.; $6 per 100.; 24-pound Shipping-Cases, 10 for $1.35; $12 per 100.

Address, **J. M. KINZIE,**

20A1y ROCHESTER, Oakland Co., MICH.

BEE KEEPERS

Should send for my circular. It describes the best Hives, the best Cases, the best Feeders and the best Methods. Address,

J. M. SHUCK,

DES MOINES, IOWA.

1A1y

British Bee Journal

AND BEE-KEEPERS' ADVISER,

IS published every week, at **6s. 6d.** per annum. It contains the very best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley Herts, England.

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD
PUBLISHED BY
THOS. G. NEWMAN & SON,
CHICAGO, ILL.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Sept. 21, 1889. No. 38.

EDITORIAL BUZZINGS.

The Perforations in metal sheets that will admit workers and exclude queens should be five thirty-seconds of an inch. This will answer a question by John Blakely, and others.

The Hall County Fair will be held at Grand Island, Nebr., on Tuesday, Wednesday, Thursday and Friday, Sept. 24, 25, 26 and 27, 1889. Louis Von Wasmer is Superintendent of the Bee and Honey Department, and $54 are offered in premiums. Mr. William Stolley will have a nice exhibit of honey and apiarian implements.

The Brown County, Ills., Fair closed on the 7th inst., and we learn with pleasure that the exhibits of Messrs. Hambaugh and Petty were exceedingly attractive. The Versailles *Enterprise* remarks thus concerning them :

The exhibits of Messrs. Hambaugh and W. T. F. Petty & Son covered nearly one whole side of the Farm and Kitchen Product Building, and was the chief attraction of all who entered it.

Mr. Hambaugh's exhibit consisted chiefly of extracted honey put up in glass and tin vessels suitable for the trade, and the honey almost transparently clear, in rows, tiers, and pyramids, fringed on all sides with natural flowers, made a very nice showing.

Mr. Petty's exhibit consisted of comb and extracted honey, principally comb, put up in one-pound sections, and packed in crates of 12 or 16 pounds to the crate, and glassed at the sides. These crates were packed one on another, pyramid shaped, till it reached almost to the ceiling. The virgin white honey, peering through the glasses, was very inviting, and reflects great credit on the gentlemen and the industry. In connection with their exhibits, both parties had live bees in observatory hives, which were a source of curiosity to many.

A Just Rebuke.—The Managers of Fairs should be more particular about getting damaging matters into their premium lists. Last week's *Indiana Farmer* contains the following from Mr. E. H. Collins, President of the Indiana State Bee-Keepers' Association :

I am surprised and annoyed to see in the premium list of the Indiana State Fair a mistake for which some one should be responsible. It is in Class 38, Bees and Honey, where it lists the premiums for "Apparatus for the manufacture of comb foundations, etc., the owner to manufacture comb during the time of exhibit."

An expert bee-keeper would know that the word "comb" could only apply to comb foundation, but the public have been humbugged so much by sensational lies written by "smart" reporters, even describing the manufacture of comb by machinery, and filling it with glucose, etc., that it is a great damage to the business of the honey-producer.

The apiarists of the country have been of late years, constantly correcting such stories, but the papers publishing the sensation do not care to correct it, and the masses do not read the corrections in the bee-papers, so that is strange to see how many intelligent people in this credulous age of invention really believe that comb honey can be manufactured as readily as oleomargarine. Consequently they are suspicious of all comb honey, unless its producer be well-known to them.

Our State Society appointed a committee to look after the exhibit at the Fair, and such a harmful, misleading error should not have been allowed to go out with such an official authority as this premium list. Such things give force and character to the already too wide-spread belief that it is possible and practicable to make comb honey by machinery.

Mr. A. I. Root, of Medina, Ohio, has a standing offer of $1,000 for any one who may show him where they do this thing by machinery.

It was in Indiana that Wiley manufactured his "scientific pleasantry," and imposed on Gov. Porter, who innocently repeated it before the Indiana Bee-Keepers' Convention, when giving that body a welcome at Indianapolis. This called attention to it, and made its odiousness so apparent, that the author of that nefarious "joke" has been compelled to retract it. But the effect of his effort can never be recalled.

Convention Hand-Book.—As the convention season is just approaching, we want to direct attention to the little book which every bee-keeper needs when attending these gatherings. Here is what Mr. J. E. Pond says about it :

DEAR EDITOR :—Your little "Convention Hand-Book" is really a very handy thing. At two or three different times I have been called on to get up something for special occasions, and I have found the "Hand-Book" just the thing to save me quite an amount of time and labor, as it was a very simple matter to use the "book" as a basis, making only such few changes as were necessary to fit the special time and place.

I can cordially recommend it to any one who may desire not only information, but a *perfect form* for organization of a convention of any kind of a convention, as it will "fill the bill" completely.

Every Hand-Book contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions ; Constitution and By-Laws for a Local Society ; Programme for a Convention, with subjects for discussion. They sell at 50 cents each, and are nicely bound in cloth covers.

We make every subscriber this offer : Go and call on your neighbor who keeps bees and ought to take the BEE JOURNAL. Get his subscription and one dollar for a year ; send it to us, and we will *present* you a copy of the Hand-Book for your trouble—by mail, postpaid. Here is a grand chance for all to get a valuable book without costing them a cent !

The "Bee-War" has reached St. Joseph, Mo., as we notice by the following item in the daily *Gazette* of a late date :

When the sanitary committee met last night, Clerk Defonds unintentionally created a disturbance at the very beginning of what promised to be a harmonious session, by springing a petition from Marks, the wine maker, out at the end of Grand avenue, asking that the bees of Emerson T. Abbott, the noted bee-keeper, be declared a nuisance and ordered removed. The petition bore the signature of twenty persons.

The matter had just been referred to the sanitary sergeant when Mr. Abbott put in an appearance. He was given the privilege of the floor, and in about twenty minutes had given the learned gentlemen of the committee a vast amount of information on the characteristics of the honey-bee, and had just about stung to death the germane portions of the petition.

Mr. Marks interrupted the gentleman frequently in a broken sort of way, that convulsed Mike Kane, Meat Inspector Pinger, and more or less of the members of the committee.

The matter was taken under advisement, and the committee will go out to-day to eat honey with Mr. Abbott, and ascertain if his bees are of the kicking variety, or just plain, every day, hard-working bees.

With such an able talker as is Mr. Abbott, we have no fear of the ignorant or malicious attacks of any one. He will carry the City Council, Sanitary Committee, Meat Inspector, and all the newspapers, and sweep them all before him, like stubble before the wind. Give it to them, Bro. Abbott, *red hot*, and plenty of it.

Can You Believe It ?—The complete works of Charles Dickens in 15 volumes, nicely bound in paper covers, are mailed to our subscribers, postage paid, with one year's subscription—all for $2.10. No one who sees them can understand how they can be produced at that price, including postage !

It pays to be a subscriber to our papers, for none will be sold at that price to any one but subscribers. They cannot be sent to any foreign country at that price. These books will be sent *as a premium*, postage paid, for four subscribers at one dollar each.

As each set will be ordered from and mailed by the publishers, there will be an interval of a week or ten days between the receipt of the money and the mailing. Complaints should be made if not received within twenty days. Complaints must be made within five weeks to secure proper investigation.

GLEANS OF NEWS.

Conventions of Bee-Keepers is to receive considerable attention in the next *Review*, and as an introduction to the discussion, Bro. Hutchinson starts out with the following hints about their utility and usefulness:

The season for holding conventions will soon be here, thus the topic will be a fitting one. These gatherings are intended for the interchange of thought, the exchange of views and experiences, and the enjoyment of the pleasures that arise from a personal acquaintance with those engaged in the same pursuit as ourselves.

Years ago, bee-keeping literature was not so plentiful as it is now. Then, if a bee-keeper heard of a paper containing an article "on bees," he would tramp away off across the town for the sake of reading it. In those days, to attend a convention was a *great* advantage. Those days are past. Apiarian books and journals are now plentiful and cheap. Through these mediums the diffusion of knowledge has become well-nigh universal. Even a *thought* is no sooner born than it is wafted on the white wings of journalism from one end of the land to the other. So fully do the periodicals keep abreast, yes ahead, of the times, that conventions can do but little more than talk over what has been already discussed in the periodicals. For a few dollars, the bee-keeper can have the best books and all of the periodicals published. With these he can sit down in the quiet of his home and read them at his leisure.

Under such circumstances, every point is taken in and comprehended; in the hurly-hurly of a convention many things are not always clearly understood, or are driven from the mind. How many up-with-the-times bee-keepers now go to these meetings expecting, as the result, to come home loaded down with information? Not many. It is not for that they go. It is to meet with the "boys."

It would be too sweeping an assertion to say that no valuable knowledge is exchanged at these gatherings; but, owing to the thorough manner in which the journals do their work, conventions are, more than ever, great big, visiting-bees. "But to meet our brother bee-keepers, to grasp their hands, to rub our minds against theirs in actual, personal conversation, is a great thing. It brightens us, it sharpens us, it gets us out of the ruts, and we go home with a feeling of vim and freshness about us." So we felt and wrote after returning from the last meeting of the North American at Columbus; and so we still feel, but cannot our conventions and associations be improved; be made to help us more in a financial way?

We know it is not best to so magnify the almighty dollar, that it hides everything else, but of this there is no danger in this connection. The social feature "will out;" the bee-keepers *will* visit; so it is with a clear conscience that we may turn our attention to the more utilitarian advantages that may be gained by association.

After the above the editor of the *Review* devotes two columns on the financial part, and argues well on the desirability of having a good Secretary, and paying him liberally for the work, which he must do to make the convention a success. This is, of course, a feeler, and we shall look with much interest for the opinions of his correspondents on the points presented, and we shall have our say about them hereafter.

Care of Honey.—In the *Farmer and Poultry Raiser* we find the following sensible hints about the proper care of both comb and extracted honey, and the important fall work to be done in the apiary:

All marketable honey should be removed from the hives at the close of the flow. Comb honey, if left on the hive, will become soiled and dark, and its bright appearance as a first class, marketable article will be damaged; hence it should be removed.

If any extracting is to be done, it also should be done at once, and not left to a later day, as it will be found very difficult to uncap and extract honey at a time of dearth. Some very important work is to be done in fixing bees up properly at the closing of the honey season. We very often find queenless colonies now, especially if much swarming is done, and all such colonies are a bait for robbers, and they seldom fail to find them.

After the close of the honey-flow the bees seem to have a mania for robbing, and if we carelessly leave colonies in such condition as not to be able to protect themselves, robbing is sure to follow; and if once they get well started at it, they will give trouble throughout the entire season. Hence, take precaution in time and prevent this difficulty.

Examine every colony and ascertain if they have a fertile queen; there should be brood in all stages now, if the queen is all right. If this cannot be found, something is wrong.

Do not leave surplus honey around where the bees have access to it. You may think that you have stored it away in some house or building, but it must be very securely stored, or the bees will find it; and if they once get a taste, they will bother your dwelling-houses and prove a pest to your neighbors; hence prevent all such, by closing everything well, and making all things secure as you go.

After the close of the honey season, market your comb honey if you can get a fair price for it. If not, hold it. It may be kept in good condition, but must receive the best of care. Look out for ants, as they are very destructive. They will puncture the cappings and ruin your crop. Place your comb honey on tables with their feet set in basins of water and kerosene-oil. In this manner the ants cannot reach it. Cover the honey with thin muslin to keep the dust off, and also give it light. Never put honey of any kind in a cellar or underground repositories of any kind. Keep it high and dry. The garret is better than the cellar.

Heat will not injure honey, it will only tend to ripen it into a better quality.

Do not put extracted honey into tight receptacles until it is thoroughly ripened. Leave an air-hole for the gas to escape.

The Chicago Convention will be held on **Friday and Saturday, Oct. 11 and 12, 1889.** The Railroad Traffic Association has made a rate of one fare for the round trip from any point within 200 miles of Chicago, good on Oct. 10, and can be used on any train returning after that until Monday, Oct. 14. The first session will be held at 9 o'clock in the morning of Friday, and an adjournment can be had on Saturday afternoon in time for those who may wish to return on that day. Those who can remain over Sunday will have an opportunity of visiting our magnificent churches and cathedrals in the morning and evening, and of taking a pleasant walk in the parks or riding on the boulevards in the afternoon, as their inclination and tastes may lead them.

Seasonable Hints.—Now that the principal honey crop for the present year is gathered, we should give attention to another subject which is of more importance just now than securing the crop—and that is, how to successfully put the product upon the market. Mr. B. A. Skinner, in the *American Rural Home*, mentions the following points to which it will pay to give full attention. He says:

In crating comb honey two grades should be made, No. 1 being white and perfect combs, while that which is somewhat inferior should go as No. 2. Never mix two grades in the same crate, putting the white on the outside, and the dark in the center, as I have seen done, as this causes the customer to think he is not getting what he bargains for, and leads to the overhauling of the contents of the cases. This often causes the honey to be bruised and otherwise injured, and made to leak, thereby daubing many of the crates, which results in disgusted dealers and low prices.

Some bee-keepers rush into market with poor honey early in the season, and sell it at unreasonably low prices, thus causing a depreciation in the price of a good article put up with care. This should not be so, and is not doing as we would be done by. There need be no hurry, as honey is not a perishable article like small fruits and some other things; but on the contrary, honey rather improves with age if properly kept.

Judging on Bees and Honey at Fairs.—These are the "points" adopted for the Hall County, Nebr., Fair as the *standard* for judging the exhibits. As they are quite complete, and well digested, we give them in their entirety for the guidance of others:

COMB HONEY.—1. Perfection of capping. 2. Evenness of surface. 3. Whiteness of capping. 4. General appearance as to marketability.

EXTRACTED HOMEY.—1. Cleanliness. 2. Clearness. 3. Flavor.

BEES.—Test for colonies shall be the net gain in stores, and will be determined by the weight of honey that can be extracted from the combs of the second and third stories (if there be a third story). Each colony shall be weighed, inspected and sealed at the commencement of the trial, and extracted as above stated at its close. No caging of queens will be allowed, or any practice by which a colony is put out of a normal condition. The bees of each colony shall be the sole progeny of the queen therein, and no colony shall be entitled to compete for a premium not showing, when handled, the ordinary amiability of pure Italians. The test for colonies shall end on Thursday night of the Fair.

No colony shall be admitted coming from any locality in which there is any reason to suspect the presence of foul brood.

Honey-Merchant Dead.—The California *Fruit Grower* of the 7th inst., makes this sad announcement:

One of San Francisco's representative business men has passed away, and we are called upon to record the death of Mr. S. Steiner, a member of the firm of Schacht, Lemcke & Steiner of this city. Mr. Steiner died at his residence on Thursday, Sept. 6, from pneumonia, after a very brief illness. Mr. Steiner was past the prime of life, but apparently strong and hearty, and gave business matters his personal, active attention. He leaves a wife and seven children to mourn their loss.

September Sunrise.

Written for the American Rural Home
BY EMMA LYNDON.

Up from the east in crimson beauty glowing,
The first September sunrise of the year
Ascends the waiting sky—a soft wind blowing,
Tells to the listening earth its Queen is here.

As some swift courier with bright torch glaring,
Scales the steep mountain till the crest is won.
To set the world agaze at its grim daring,
The season's herald mounts his torch, the sun.

The moon grows white, the faint stars fade and flicker,
And die before the splendor of the dawn.
The new day steps abroad, earth's pulse beats quicker,
Night's shadows suddenly are quenched and gone.

Still upward, higher, wider leaps the glory,
The morn's gray bars are lines of red and gold;
Sunflower and golden-rod take up the story,
And nod the news until the day is old.

No after season, dull, or dark or lonely,
Or filled with whirling snows, or gray with cold,
Can quite efface this memory and this only,
Of Queen September on her throne of gold.

QUERIES AND REPLIES.

Are Better Bees than Italians Required?

Written for the American Bee Journal

Query 654.—Is a better race of bees needed than the Italians we now have?—H. F. C.

Yes.—A. B. MASON.

No.—MAHALA B. CHADDOCK.

I think so. I do not like pure Italians.—R. L. TAYLOR.

Should a better race appear, we would say *Yes*.—J. M. HAMBAUGH.

Yes. I do not believe that we have reached the end of all perfection yet.—EUGENE SECOR.

Improvement is always needed. *Perfection* cannot be reached.—DADANT & SON.

Yes, if any can be found. We want the best bees on earth.—C. H. DIBBERN.

A better race would be desirable; but a better race I do not know of.—J. P. H. BROWN.

I doubt very much if the Almighty ever made a better bee. Perhaps He could, but He has not, as yet.—MRS. L. HARRISON.

Most assuredly. We ought to have a race that has all the good points of all the races.—A. J. COOK.

It would seem so, from the efforts of queen-breeders, to produce something better.—G. L. TINKER.

Well, yes, we will always want something better than we have; but no better bee is likely to be brought out than the carefully-selected Italian.—G. W. DEMAREE.

We always want to better what we have, and by all means let us have a better race, if it is possible.—P. L. VIALLON.

Certainly, we need a better race, if it exists; but I have some doubts of its existence.—C. C. MILLER.

In my judgment, and I have tried them side by side for several years, the Syrians are a better race than the Italians.—M. MAHIN.

All progressive persons are looking for something better, and in the near future I look for better strains of bees than we have at present.—H. D. CUTTING.

We will *always* need a better race of everything, bees included. Everything in the world, except the dull preacher, stops when it is done.—J. M. SHUCK.

Yes; a race more gentle, with longer tongues, harder workers, longer lived, and earlier risers; and one that can stand our cold winters, without succumbing in the spring.—WILL M. BARNUM.

I do not think that there is, but new races must be found and advertised in order to create enthusiasm and competition. The Italians are good enough for myself.—J. E. POND.

"Needed" is a curious word for this place. All progressive men want "better" *everything*, and none of us are ready to claim perfection in anything. I now have a much better strain of bees than any pure Italians, and I "need" them every day of the summer.—JAMES HEDDON.

Yes. Just give us a bee of the bumble-bee size, and with all the perseverance and good qualities of the Italians, and I will invest $100 in the first queen you have to spare, which will answer the description.—G. M. DOOLITTLE.

Most assuredly. "Improvement" is the order of the day. We have not yet attained perfection. Every progressive apiarist wants the best on Earth. No matter what are the attainments of the present, there is a longing for "the next progressive step" in all directions. Better bees, with longer tongues, and even greater activity, docility and beauty are *always wanted*. When such are produced, they will find a ready market—but even such will not long satisfy the ever-advancing ideas of the modern bee-keeper! He will still look for the *better* ones—yet unbred, undeveloped, and unborn. Perfection is never attained—it is always a step in advance, to induce a longing for it, and a reaching out after it. Give us the best the Earth affords—always.—THE EDITOR.

CORRESPONDENCE.

MARKETING.

How to Properly Prepare Comb Honey for Market.

Written for the American Bee Journal
BY E. L. PRATT.

For the last few years I have handled a crop of comb honey (from 500 to 800 pounds) in my home market, at prices ranging from 30 to 35 cents, and very often as high as 40 cents for an *extra* nice article.

At the present time, I have at least a dozen people at my heels, all the time, asking for more of that "nice honey." The other morning I brought up a large basket full of this year's crop, and before I could arrive at my destination, it was all disposed of.

Now, how do I work it? you ask. In the first place, I read everything anybody has to offer on the subject of marketing, and profit by any good points discovered.

I keep in my pocket, pamphlets and printed matter, "Why Eat Honey," "Honey as an Article of Food," "Honey as Medicine," etc., and when an opportunity affords itself, the teachings of these are made known.

Bees are mentioned and talked about until everybody for miles around knows that I "keep a lot of bees and sell fine honey, that is warranted pure." Many have bought honey directly from the hive, which is all-convincing to the inexperienced masses.

The honey should be taken off directly after capping, and stored in a warm room until thoroughly ripe. The boxes should be perfectly clean of bee-glue, and as white as possible, before a pound is sold.

I have three grades, and the first and second are carefully wrapped up in very pleasing packages. The third is sold in bulk, or otherwise, to the best advantage.

Before the paste-board cartons were put upon the market, I used to have a plain rim made of white pulp-board, just right to take a one-pound section. I now use the cartons.

After the honey is *thoroughly* ripened, I label each box with a plain, small, neat label, printed with black ink, "Warranted pure honey by————." Each box is then done up in one sheet of white tissue-paper, and slipped into a carton. I now wrap the whole thing in pink-tinted French folio-paper, sealing down the corners neatly with paste or mucilage.

After I have wrapped and sealed enough for a week's supply, I go over

the packages once more, and attach to each a neat, little two-colored label, telling what it is, where produced, and whom sold by. These labels are printed on white paper, with pink and blue-black ink, and are pasted on one of the sealed ends. One series of plain, neat type is used.

On the *very* finest honey, I use red sealing-wax, and a stamp that denotes an "extra brand," which has become quite popular among the classes in my market.

The carton in itself is very rough and crude-looking, and to print huge black letters on a whole broad side, ruins its sale every time in my market.

In a high-price market a great deal depends upon all the little points of neatness.

Many of my customers prefer to buy their honey by the half-dozen pounds, and I find this to be the amount used in ordinary families, so I have white-pulp-board boxes made just the correct size to hold six packages of honey snugly. Very often I can sell 6 pounds in these boxes where the party would have taken but three or four, if in separate pound packages. I have never shipped honey any distance in this way, but if occasion required it, I would make crates to hold just four of these half-dozen boxes, and grade it so each crate would weigh 25 pounds above the tare.

The cost of labor, cartons, paper, labels, etc., is very slight, compared with the price received.

A fair sample of the lot is sometimes finished up with glass at the front and rear, and placed on exhibition with other packages in some neat show-window.

A placard, "Hot rolls and honey," will draw human "flies."

Marlboro, Mass.

LAYING-WORKERS.

An Experience with One of these Annoyances.

Written for the American Bee Journal

BY A. M. VANNOY.

While looking through some nuclei hives to-day, I found what I have the best reasons to believe to be a laying-worker. I caught her, caged her, and now send her to the BEE JOURNAL office for inspection, and whatever use may be made of her for the fraternity. The circumstances are as follows:

About July 1 I procured a lot of bee-entrance guards (zinc), and placed them on all hives having hybrids or black drones (of such I had several colonies then), and having lately introduced some tested queens (from Ohio), it became necessary to place the guards on the hives of two such colonies. One was a strong hybrid, and this hybrid colony "balled" their queen, and killed her. I divided the colony into nuclei for queen-rearing, leaving three frames at the old stand. In due season four queen-cells were constructed and matured; three were removed to other nuclei for nursing, and to be fertilized. The one left at the old stand was either lost or "balled," for after several attempts to find her, I again gave the nuclei brood for queen-rearing, but no queen-cells were constructed.

About ten days ago, I discovered a huge drone-cell on a corner of one of the combs; I took it off, and opened it, and it contained a live drone, well advanced in the chrysalis stage; and noticing the bees hover closely over a small patch of drone-comb on the lower edge of one of the combs, I smoked them away, and found eggs in these few drone-cells.

I then made a most careful examination of every frame, to see if there was a queen, but I could find none; however, I saw this same bee, or one just like her, and saw the the bees feed her and attend her, just as they appear to do for the queens.

I have been watching them from time to time, until to-day I discovered her backing down into one of those drone-cells, and remain thus a short time; and upon closer examination, I found, apparently, fresh-laid eggs in this cell, and in several other drone-cells, which the bees have lately built. Hence I concluded that I have a clear case of laying-worker, and send her to you as such. I used to doubt the laying-worker theory, but now I do not.

P. S.—I neglected to state that the eggs found about ten days ago have hatched, and the bees had a very nice queen-cell constructed, and closed, with another large drone (apparently so) in it. I very thoughtlessly pinched it off the comb—a thing I now wish I had not done.

Furthermore, there are plenty of empty worker-cells in apparently good condition, to receive eggs, but no eggs are there. Nearly one entire comb where the last brood hatched, is empty, and in every other nuclei in the apiary they are either full of eggs, larvæ or sealed brood. This one has none except those in the small patch of drone-cells referred to.

Hedrick, Iowa, Aug. 26, 1889.

[We referred the foregoing laying-worker case to Prof. A. J. Cook, who has kindly given a reply as follows:—ED.]

The bee is a laying-worker. I found several eggs in her ovaries, but the ovaries were small. She had the regular worker-jaw, wing, tongue, maxilla, and legs; and, curious enough, she even had wax-scales in the wax-pockets. This was a new kink. I never saw this before. It would seem that she was not quite satisfactory to the bees, as her hair had been pulled out, and the last four of the tarsal joints of both hind legs were gone. She doubtless found life a struggle.—A. J. COOK.

GERMANY.

The Condition of Bee-Keeping in the Fatherland.

Written for the American Bee Journal

BY REV. STEPHEN ROESE.

The knowledge of bee-keeping in Germany is by no means limited, judging from late reports of the various bee-keeping periodicals of the Empire, and the fact of the passing of a law by both Houses of the Reichstag, of 16 paragraphs, granting permission to all inhabitant to establish apiaries, free of taxation, and affording protection to this honest art and industry, to a great extent.

Bee-keeping societies, associations, and branches are without number. When Germany goes into anything, she goes into it with all her might. Every man, woman and child has an opportunity to receive instruction on all modern improvements in bee-culture, for the various societies are divided and subdivided into branches, and even sections, meeting once a month, and oftener.

Each branch has qualified leaders and speakers, canvassing every city, village and hamlet, delivering essays and lectures on bee-culture; and their activity seems to resemble the stumping of a presidential campaign in the United States, and, as the saying is, not a stone is left unturned.

The division and subdivision into sections, with a leader or foreman, is a movement of great wisdom. It seems to create an eagerness among them to see which one will succeed in getting the largest number of members. An annual fee from each member from 1 to 2 marks does swell their treasury to enable each society to carry on its business in a business-like manner.

The German Central Bee-Keepers' Union has charge over the field of Central Germany, with a membership of 20,600, alone, according to the statement of Pastor Rabbow, acting president of that society. The Government estimates an annual income of each colony of bees in the Empire at 12 marks each, with a grand total of 17,000,000 marks, as the net income

from bee-keeping for the German nation. No wonder Emperor William is so willing to sign the new law, passed by the Reichstag, and intended to promote bee-keeping in Germany.

The German Central Bee-Keepers' Union held its third annual session in the city of Stettin, Prusia, on Sept. 6 to 9, with a grand exhibition on Sept. 7; opening exercises by the honored President Graf (Marquis) Behr Veyerdank; a distribution of grand diplomas and prizes of the value of 4,000 marks from the Union, and two gold medals from Graf Behr Veyerdank.

German Laws on Bee-Keeping.

The folowing is a correct translation of the late enacted laws to promote bee-keeping in Germany:

We, William, King of Prusia, etc., degree throughout our Monarchy, by sanction of both Houses, the following, to-wit:

1. The privilege of bee-keeping to all inhabitants on their own property.

2. The same right to all renters or lease holders, by permission of the owner of the property.

3. Apiaries may be established anywhere, against objections of neighbors, by enclosure of at least 2½ meters high; from April 1 to Oct. 1, 10 meters high (this is in case of neighbors objecting.)

4. Moving apiaries to forests, buckwheat fields, or any other pasture, each must respect a distance of 200 meters, and 25 meters from any public highway.

5. Near bleaching, dyeing or tannery establishments, the distance of 50 meters must be observed.

6. Apiaries will be protected by civil right and law.

7. The swarm issuing is the exclusive property of the owner of the parent colony, with the right to capture the same, wherever found, without trespassing.

8. An absconding swarm is ownerless, as soon as sight is lost of the same.

9. Such swarm will be the property of the capturer.

10. In case of swarms uniting, each rightful claimant has a joint interest in the same; but in case of a disagreement, decision will be made by arbitrary lot, or sale of the same, dividing the proceeds according to the interest of each.

11. If a swarm enters a hive of any other apiarist, inhabited by a colony of bees, all claims on the newly-entered swarm by its former owner ceases at once.

12. All transgressions of rules 3, 4, 5, will be punished by a fine of 150 marks, or six weeks' imprisonment.

13. Any one who wilfully or maliciously in any way destroys (so-called robber bees) by water, fire, steam or poison, or trap, shall be fined 600 marks, or an imprisonment. for one year.

14. A fine of 600 marks will be imposed on any one who sells bees, hives, products, or implements infested by foul brood.

15. A fine of 60 marks, or imprisonment for two weeks, will be imposed on any who (*a*) recklessly sells or gives away hives, boxes, products or implements, etc. (*b*) Who carelessly in his apiary sets up such colonies, or leaves scattered about combs so infested. (*c*) Who neglects to remove foul-broody, infested hives, or close the entrances of the same.

16. This law is to take effect on and after Oct. 1, 1889; after which date all former statuary laws, rules and and regulations relating to bee-keeping, will cease to be in power.

Maiden Roek, Wis.

BEE-NOTES.

Laying Several Eggs in a Cell—Comments.

Written for the American Bee Journal

BY J. H. NEWMAN.

On page 471, Mr. Frank S. Johnson says that his young queen lays 4 or 5 eggs in some of the cells, and asks what it means. My queens often lay several eggs in a cell, when they first begin to lay; the old queens do it when they begin in the spring.

How to Secure Worker-Comb.

I have been trying to find how to get worker-comb built without using foundation. The bees, as soon as they are a fair-sized colony, and honey coming in, think of increase. They can increase by drones or queens, or both; of course it takes both drones and queens for increase; but a colony of bees can increase by rearing drones and letting others rear the queens. They are ready to rear drones long before they are strong enough to rear queen-cells and swarm. So it seems that when they are doing well, if empty frames are put among them, they will—unless it is a very small colony—fill it with drone-comb, because they want drones. The more drones, the more increase of their kind among other bees.

After swarming, they have no brood, and as they must have new worker-bees or die, they give their attention to making worker-comb, because they want workers. Comb built by new swarms, or by nuclei, where the bees plainly see the need of worker-brood, will be worker-comb.

King-Birds and Bees.

There are some king-birds with a nest near here, and the bees seem to chase them whenever they see them fly, and I have seen 4 or 5 bees chasing one king-bird about 40 or 50 rods from the hives. I have not seen the birds catch any bees, and the bees do not attack the birds, except when the birds are flying. The bees did not seem cross at this time, either.

Priority of Location.

On page 284, Dr. Proctor says: "If Mr. Pettit's logic is true, when a man buys a farm and commences to raise corn, cattle, hogs, and poultry, no other should be allowed to come near him and do the same."

No other man *is* allowed to do the same, on the same place. If a man has a place, and begins raising cattle, no one is allowed to raise cattle on the same place, without his consent. But if a man has a bee-pasture, everybody is at liberty to use it.

A man cannot keep bees on his own land as he can other stock, for they have no respect for fences or surveyors' lines. The bee-pasturage does not belong to the man who owns the land, for he has no control of it, but it is common property—the honey belonging to the man who gets it.

Charlevoix, Mich.

QUEENS.

Shall a Colony Rear Its Queen After Swarming?

Written for the American Rural Home

BY G. M. DOOLITTLE.

I am asked to give an article on the plan of giving each colony a laying queen immediately after swarming, as is recommended by some, and also to tell whether I consider the plan a good one or not. As I do not consider the plan a good one, I will try to give my reasons for so thinking.

For years we have been told that no colony should go without a laying queen for a single day, if it were possible to give it one: and plans for introducing queens, which required that the hive should be queenless for a few days previous, have been severely criticized. We have also been told for years, that the bee-keeper who wishes to secure the best results from his bees, should have a laying queen ready to give to each old colony as soon as it has swarmed, as the time lost to them by rearing a queen is equivalent to a swarm of bees.

Being eager to know for myself all of the plans which would give the best results, I experimented largely; and the

truth of the statement, that the time lost to the bees in rearing a queen in natural swarming was equivalent to a swarm of beees, is the first reason that the plan has not been a success with me. If it were bees that I was after, the case would be different. Here the white clover yields only enough to keep the bees breeding nicely, and prepares them so that they mainly swarm from June 20 to July 1. Our honey harvest is principally from basswood, which blossoms from July 5 to the 16th.

Now all who are familiar with natural swarming, know that the bees are comparatively few in numbers in the spring, and increase by the rapidly-increasing brood produced by the queen, which in due time hatch into bees, until a swarm is the result. By giving a laying queen to a colony immediately after it has cast a swarm, we bring about the same result (swarming) as before, or we place the bees in the same condition. The only difference is, that having plenty of brood, they build up quicker and are prepared to swarm in a shorter time.

As this second swarming brought about by giving a laying queen, comes right in our basswood honey harvest, it cuts off the surplus honey; for it is well known that bees having the swarming fever do little or no work in the sections, and if allowed to swarm, the object we have sought after (honey) is beyond our reach.

Having given my experience on this point, let us see how the same colony would work had we not given the bees a laying queen.

Eight days after the swarm has issued, the first young queen will have emerged from her cell, as a rule, when the apiarist should remove all of the other queen-cells from the hive, so that second swarming is entirely prevented. In ten days more the young queen is ready to lay, which is about the time basswood begins to yield honey largely. During this period, between the time the swarm issued and the young queen commences to lay, the bees, not having any brood to nurse for the last half of the time, consume but little honey; hence, as fast as young bees emerge from the cells, they are filled with honey; for bees not having a laying queen or unsealed brood, seldom build comb in the sections. Thus, when the young queen is ready to lay, she finds every available cell stored with honey.

At this point the instinct of the bees teaches them that they must have brood, or they will soon cease to exist as a colony, and a general rush is made for the sections. The honey from below is carried above, so as to give the queen room, and in a week we have as a result, the sections nearly filled with honey. I have had such colonies fill and complete sections of honey to the amount of 60 pounds in from eight to twelve days, while those to which I had given the laying queen immediately after swarming, did little but swarm during the same time.

Bear in mind that we are talking about producing comb honey, not extracted. Different localities may give different results; still, I think that nearly all localities give a large flow of honey at a certain period during the season, rather than a steady, continuous honey harvest the whole summer. To such places these remarks are applicable.

My second reason is, that after basswood we have a honey-dearth, hence the bees from the introduced queen are of no value, but on the contrary become consumers. On an average, it takes 21 days from the time the egg is laid to the perfect bee. Then if the colony is in a normal condition, this bee does not commence labor in the field until 16 days old; hence, the eggs for the honey-gathering bees must be deposited in the cell 37 days before the honey harvest ends, or else they are of no value as honey-producers.

As the basswood is all gone before the eggs of the introduced queen become honey-producing bees, and as the larger part of them die of old age before buckwheat and fall flowers yield honey, it will be seen that a great gain is made by letting each old colony having cast a swarm, rear its own queen; for thereby we save the expensive feeding of the larvæ, which are to become expensive consumers of the honey of the hive. Also the chances are that, when the colony rears its own queen, it will be stocked with younger bees for wintering in November, than where a queen was introduced immediately after swarming.

The one point worth knowing above all others in bee-keeping, is a thorough knowledge of the location we are in, as to its honey-resorces, and then getting the largest amount of bees possible at that or those times to gather the honey, having just as few at all other times as is consistent with the accomplishing of this object. In working so that we get the bees out of season, we have to pay the same price for them that we would to get them so that each one becomes a producer instead of a consumer.

If all who read this article will study their location, and then rear their bees in reference to that location, I think that they will find that their bees will do as well as those of their more successful neighbors. We often hear it said that one colony in an apiary did much better than the rest, and had they all done as well, a large crop of honey would have been the result. The reason that *that one* colony did so well, was because it happened to have a large proportion of its bees of the right age to gather honey just in the honey harvest, and if we can get all in this condition, we can secure a like result from the whole apiary.

Borodino, N. Y.

HONEY-BOARDS.

Answer to Questions about Section-Cases and Honey-Boards.

Written for the American Bee Journal
BY JAMES HEDDON.

I am requested by the Editor to reply to the following letter from a new subscriber to the AMERICAN BEE JOURNAL, at Davenport, Iowa:

I had 10 colonies of bees last spring, and they increased to 24, partly by natural swarming. I shall have about 800 pounds of nice comb honey from 20 colonies, having sold the other 4. What is the best way to get bees out of crates, after they are taken from the hives? Is it necessary to use honey-boards between supers and brood-frames? If so, will you describe one made of wood, and the one mostly in use? Is it better, at this season, to put a wide frame with sections at the side of the brood-nest, than to put on another crate?

The bee-keeper is away behind the times at present, who does not get the bees all out of his supers *before* he takes them from the hive; but to answer your question precisely as you ask it, I will say, carry the "crate," or more properly, storing-case, to a screen-house, or some place so prepared that bees can exit but cannot or will not enter. (Crates are to ship honey to market in, so let us call them shipping-crates. The storing-cases that are used on the hives, let us call "cases," not racks or crates, but storing-cases, or cases. Let us call brood-frames, brood-frames, and then when we want to use the word "rack" we can use it properly by applying it to that large, coarse frame which holds upon the wagon the hay or straw, upon which we ship 30 or 40 colonies of bees to an out apiary, or some other location, being drawn by horses.) There are two or three different plans which have been described in former issues of this paper, all of which work perfectly.

Yes, the bees will leave your supers even when producing extracted honey, provided there is no brood in them, and there will not be, if you use the queen-excluding honey-board, or if you take them off so late that the brood is all hatched out. With the use of a good honey-board, not excluding, there is little danger of brood in comb-honey cases.

Yes, sir; it is absolutely necessary to use a honey-board between the supers and brood-frames, if you expect your work to pass off pleasantly and smoothly. This board can be either wood or metal, and the wooden one mostly used is known as the bee-space, break-joint honey-board, invented about ten years ago, and made queen-excluding by tacking strips of perforated-zinc on the upper or under side of the slats over the slots, or by putting a saw-kerf in the edges of the slats, and slipping in the strip of perforated-zinc, which is more quickly done, and makes a smoother-looking job.

There is no patent upon this honey-board, and it is undoubtedly the best one ever invented, and is now going into general use. For comb honey it is hardly worth while to go to the expense of having it queen-excluding, but for extracted honey, unless working on the non-swarming plan, where one has a great plenty of combs I prefer to make the honey-board queen-excluding, according to the above method. If you once use a good honey-board, you cannot afford to do without them thereafter.

No, do not use any wide frames in the brood-chamber. The honey will not be nice, as a rule, and it is not a place where it ought to be, if you expect to do your work expeditiously. Put on another storing-case, and again another, as long as the bees need more room. If the last case given them is not finished, during that season, it can be finished up by feeding back extracted honey, or what is already stored can be extracted, saving the combs for the next year.

Dowagiac, Mich.

HINTS.

Soiled Sections, Weeds, How Far Bees Fly, etc.

Written for the Western Plowman

BY C. H. DIBBERN.

The gathering of the fall crop of honey now promises to be both large and of good quality. Of course we want all the honey that can be secured, and we want that in the most attractive shape.

Do Not Use Soiled Sections.

We were lately asked if old combs in soiled sections would not be good enough to use for the late dark honey, as it usually sells cheap, anyway? We most decidedly say, No. If ever we want nice, new, clean sections it is to have the rather dark and less attractive honey stored in. Old comb is not fit to store any kind of honey in, but if such must be used, it would be better to use them for the white honey crop. These old sections and old combs have done more to demoralize prices than anything else.

Bees in Good Condition.

Bees are now in good condition for gathering the fall crop of honey. The hives are all well supplied with good honey, and plenty of brood is constantly hatching out. There is now not that disposition to swarm that interferes so seriously with the early crop. Honey coming in now should nearly all go into the sections, as there is no other place for it. It will not do, however, to put on too many sections, or continue adding cases of sections too late. Remember the gathering of honey will cease entirely with this month, and it is much better to have nearly all the sections finished, than to have a lot of partly finished ones to store and spoil our next season's crop with.

I have opposed using sections and combs held over from the fall crop, for years, and this season's experiments only confirm my previous conclusions. No matter if some bee-keepers think they are very nice to coax bees into the section-cases with, I would not give much for a colony having plenty of bees that would not rush into such cases with foundation in the sections, when honey is plenty in the fields, and the weather is favorable.

Wire-Cloth Separators.

Last season we tried a very few one-fourth-inch mesh galvanized wire-cloth separators, and were rather pleased with them. That being a rather poor year, they seemed to be all right. This year we tried a few more, and find them too uncertain to depend on. The bees can get through them anywhere, and seem to like them—so well that sometimes they use them for the center of their combs. There is also too much brace-comb and attaching comb to it. So far tin suits us the best, but we expect to give thin, planed, wooden separators a trial next year.

After all, the honey crop of the United States does not prove to be nearly as large as we were led to believe. By referring to a late standard report, we find that about a dozen of the Central States have produced a full crop. Michigan and New York, two of the largest honey-producing States, report about one-third of an average crop, and New England States only one-fourth. California, a State that sometimes nearly swamps us, also reports only about one-fourth of a crop. So taking the whole country, there will be quite a shortage, and those bee-keepers in the favored States, who send their product to the right markets, will no doubt meet ready sales and good prices.

How Far Bees Fly.

A good deal has been said about how far bees will fly for honey. Some writers claim that they will only fly two to three miles, while others are just as sure they will go from five to seven miles. Now a bee's wings vibrate, or beat the air, at the rate of 190 strokes in a second. Some claim that this will produce a rate of flight of a mile per minute. In windy weather, when they take advantage of trees and other obstructions near the ground, they fly at a very slow rate, perhaps not more than ten miles per hour. In fair summer weather, however, when there is little wind, and they fly high in the air, they go like a shot, but I am satisfied that they do not go as fast as sixty miles an hour. Thirty miles perhaps is more nearly right. Now if they travel a mile in two minutes, it is fair to suppose they can easily keep this up for twenty minutes. This would take them ten miles from home.

We think that they will often go that distance to a buckwheat field. It can, however, be easily understood that they would gather much more honey when pasturage is nearer, as they could then make more trips. When bees make long trips, as ours are now doing, they return almost exhausted, often dropping at the entrance, and sometimes resting a minute or two before entering the hive.

Clean Out the Weeds.

Many bee-keepers get a little careless towards the last of the season, and allow the grass and weeds to grow up and obstruct the entrances. This is a great mistake, as it makes the apiary look slovenly, and, besides, is a great annoyance to the bees. A bee's wings vibrating at such a wonderful rate are easily injured and worn by beating against the grass. When a bee's wings are worn out, it is of no further use, and is speedily lost, and dies. Keep the apiary trimmed up.

Milan, Ills.

WINTERING.

How to Prepare Bees for Successful Wintering.

Written for the American Bee Journal

BY CHARLES F. MUTH.

It appears that the subject of "Wintering," in my "Practical Hints to Bee-Keepers," does not quite cover the ground. Allow me to publish a letter on the subject, just mailed to a friend;

it may benefit some readers, and save me the writing of a few more letters on the same subject. It is as follows:

Wintering of bees is the easiest and most successful part of my bee-keeping, and I am surprised at the trouble it causes many of our brethren, often to those whose long articles in bee-papers and other periodicals seem to show that they know all about the subject.

I winter my bees on the summer stands, and in single-walled hives. The only extra work caused by my preparation for the winter is, to remove the honey from the second story, cover the brood-chamber with a wooden cover (3 third-covers), place a straw mat on the same, and open the entrance to its full width. Be sure that the colony has plenty of honey, and give the hive a pitch towards the front, of at least 2 inches.

If prepared in this manner, your bees have given you no trouble at all, and will winter more successfully than your neighbor's bees in the cellar, or in their cellar-like chaff hives, even if the mercury ranges between 16° and 22° below zero for thirty days or more. Colonies may starve to death for me in March, April or May, and such has happened, but I shall not lose a colony in wintering.

Your colony must have plenty of honey. Let every one of the 10 combs, or less, according to the size of the colony, be partly filled with honey, and place the heaviest combs towards the middle. Winter passages may not be necessary in mild winters, but may save the colony in a protracted cold; so, cut a winter-passage through the middle of every comb, by putting a pocket-knife blade through and turning it.

The entrance of every hive should be open its entire width, during the winter months. Your bees will feel comfortable if they have honey enough, and I am not very sure that they have consumed more honey than the bees of cellar-winterers, by the time that honey comes in again.

We use 3 third-covers to cover the brood-chamber, and place a straw-mat, or its equivalent, on these wooden covers, to protect them against the cold air, because the bees cluster below, and would chill if this protection were denied them. If on any cold day you want to find the spot under which your bees cluster, raise the straw-mat, and pass your hand over the boards. This will show you the necessity of keeping the boards warm, and it will convince you that "board" next to the bees, is just as practical as the absorbing-cloth, and more so, if your hive has a pitch to the front, of at least 2 inches.

The exhalations of bees condense into water during cold spells, which hangs, in big drops, under the covering-boards, and runs down the combs and the sides of the hive to the bottom. From here it would be absorbed again by the bees, combs and honey, if it could not run out. It would create, thereby, dampness above, and cause the honey to sour under and near the cluster. Diarrhea would be the consequence.

You will be surprised at the amount of water running out in front of the hive, when raised at the back, some mild day following a cold spell. It will convince you that the pitch to the front should be at least 2 inches in winter.

As stated before, I am surprised at the vexation and expense that some of the brethren undergo, when attempting to winter their bees, while they could accomplish their object in so simple a manner, as I have described—at least in this latitude.

Cincinnati, O.

BEES IN WINTER.

Some Hints About Bees in Cellars or Out-of-Doors.

Written for the City and Country

BY A. H. DUFF.

If bees are wintered in cellars or underground repositories of any kind it would be much better if some absorbing material were used over the frames, and directly against them, just over the cluster of bees.

There is a great benefit in keeping the bees dry, by absorbing all dampness that arises therefrom; hence, in cellar as well as out-door wintering, this will be found a great benefit. This can readily be accomplished by leaving the cover off and placing a chaff cushion on the hive instead.

It is almost impossible to winter bees successfully in cellars that are used for other purposes, such as those used under dwellings for keeping vegetables and other commodities for family use. The unceasing interruptions by entering and re-entering will prove an annoyance to the bees to such an extent that trouble is likely to follow. This is against the most important point in successfully wintering bees, and that is perfect quietude during winter, both in and out-of-doors, and our advice is to those who do not have cellars or caves especially for bees, and for no other purpose, to winter out-doors. Cellars, properly arranged, are no doubt ahead of any other method of wintering, but every point in connection must be strictly adhered to.

Bees in underground repositories should remain in them the entire winter, in an undisturbed condition, and, if their condition will allow, they should not be removed therefrom much before the first of May. If they are put out before this, cold snaps are very hard on them, and may result in their destruction. If they are found in such condition as their confinement longer is impossible, they may be put out on a fine day to give them a purifying flight, and placed back in the cellar thereafter. This is the only safe method of handling them. Thus, if bees are in proper condition in the fall when placed into winter quarters, but little work during winter is required, although a few details cannot be dispensed with. They must have an overseer to keep everything in its proper place.

Bees wintered out-doors should have protection from the cold of winter, and as it is now a very uncommon thing to find them in any other way, it is not necessary to say anything on the method of protection. During winter, upon days that they can fly, it is very necessary to have prepared alighting places for them about the entrance, as, on such weather as bees are able to take a flight, it often occurs that the weather suddenly turns cold and chilly, and bees coming in fall at the entrance, and if they cannot travel directly into the hive by means of a sloping bank of some prepared material, or a board, they are lost, being unable to take wing the second time to gain an entrance; hence the necessity of an alighting-place. This may be made by banking up of earth to the entrance of the hive. A covering of sawdust, sand or gravel is very good to cover the surface.

Snow about the hives will do no harm, even if the hives are totally covered. Many are foolish in removing snow from the entrances of hives during winter, thinking that the bees will suffocate. There is no danger of this. It is more of a protection, and should not be meddled with.

Any warm day, when the bees are flying freely, they may be examined by the apiarist, but only on such days. We should not, however, put off until spring to make examinations, but take advantage of the occasion when a warm day comes. If we find that any colony lacks stores during winter, we can furnish them food in the shape of candy, but only in cold weather, when syrup feeding will not answer. Syrup will have a tendency to produce diarrhea; thus candy only should be used. The candy should be made from granulated sugar, and placed over the frames.

Larned, Kans.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Sept. —.—Maine, at Livermore Falls, Me.
J. F. Fuller, Sec., Oxford, Me.

Oct. 3.—Progressive, at South Newbury, Ohio.
Miss Dema Bennett, Sec., Bedford, O.

Oct. 11—12.—Northwestern, at Chicago, Ills.
W. Z. Hutchinson, Sec., Flint, Mich.

Dec. 4-6.—International, at Brantford, Ont., Canada.
R. F. Holtermann, Sec., Romney, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Zinc Honey-Boards.—George P. Howell, New Orleans, La., on Aug. 26, 1889, writes:

This has been a remarkable honey season with me. The long drouth we had this spring was the finest honey weather I have known for sometime. I have had remarkable success with the zinc honey-boards I purchased of you. I used about 30 or 35 of them this season, and in not one instance did the queen come through.

Bees Have Done Well.—Mr. F. Councelman, Doylestown, Wis., on Sept. 12, 1889, writes:

Bees have done well for the length of time they have had to work this season. I have taken just about 2,000 pounds from 18 colonies, spring count. I had some trouble with after-swarms. They seem to be inclined to rob somewhat this month, although they are doing well on the smart-weed blossoms, of which there are large quantities within a mile of my yard. I live in the village, and keep my bees there. I have had no trouble about their troubling my neighbors.

Honey-Dew for Winter Stores.—E. J. Smith, Addison, Vt., on Sept. 6, 1889, writes:

I would like to know what to do with my bees. They have been working on honey-dew, gathered from the basswood, elm, and oak leaves, which have been loaded for the past two or three weeks. They have carried in from 10 to 30 pounds, mixed with clover and buckwheat. It smells some like buckwheat, as I go through the yard. I have 180 colonies, and it would be an awful job to extract it and feed back sugar. I am afraid that unless we have a very favorable winter, there will be a very heavy loss of bees all through this part of the country. They have filled the hives so full in some cases as to crowd the queen. The honey is dark, like buckwheat, thick and strong. I would like to hear from some who have had experience in wintering bees with it. I have kept bees for ten years, and have seen some honey-dew now and then, but nothing like it is this year. They have worked as well on it as they would on basswood.

[To extract the honey-dew and give the bees good, ripe honey, is the safest plan. What say those who had similar experience with honey-dew?—Ed.]

Carniolans, Probably.—L. Hammerschmidt, Amana, Iowa, on Sept. 3, 1889, says:

A small swarm of bees came here and clustered on a brush; when hiving them, I found about one-fifth of them like the one enclosed. What is it?

[This is only a very fuzzy black bee—a sort of Albino of the German race. It is much like the Carniolan in appearance. Possibly these are Carniolans. The bee is too crushed to be certainly identified.—A. J. Cook.]

Meadow-Sweet and Asters.—Mr. A. Sherington, Dutton, Mich., has sent us samples, and wrote as follows:

I enclose two flowers, and I would like to know the names of them. No. 1 is a sort of shrub, and grows on low land like the willows, and the bees work on it vigorously. It blooms in August. No. 2 is a plant or weed. It has just commenced to bloom; the bees work on it from daylight until dark, and are just wild after it. The season here has been very good. It is hot and dry, and bees are doing well.

[Prof. C. M. Weed replies thus to the above: "No. 1 is common meadow-sweet, *Spiræa salicifolia, L.* No. 2 is an aster, *Aster ericoides, L.*" All the asters are excellent honey-producers, and no wonder that your bees should be "wild after it."—Ed.]

Report for the Season.—H. B. Winslow, Stockbridge, Mass., on Sept. 3, 1889, writes:

I started last spring with 9 colonies of bees, increased to 16, one swarm having absconded. One colony swarmed three times. It rained nearly every day (except Sundays) through the white clover season. I got only 30 pounds of comb honey up to Aug. 12. The rainy weather ceased about the middle of August. I had to feed 6 colonies to keep them alive, as they did not have an ounce of honey at that time. We have not had any rain for over two weeks, and the bees have done wonders. The hives are full of brood and honey, and the bees are filling the sections fast. There is an abundance of golden-rod and wild asters here, and we have heavy dews, which hold on until nearly noon. I had only one swarm last year; it stored 60 pounds of comb honey by Aug. 1, and 20 pounds this season. That colony has not swarmed for two seasons. I prefer the golden-rod for the national flower. I receive 25 cents per pound for nice comb honey, from the city people at Lenox.

Golden-Rod, etc.—Mr. Chas. W. Dickson, Stellarton, Nova Scotia, on Aug. 19, 1889, writes:

Kindly give through the Bee Journal, the names (botanical) of the plants which I send you; they bloom profusely in this neighborhood, and supply large quantities of honey now to our bees. I put up each flower in a separate package, and designate them by numbers. I am very much pleased with the American Bee Journal, and think that bee-keepers should read it.

[No. 1 is a species of *Senecio*, which cannot be determined specifically without leaves and stem. Nos. 2 and 3 specimens are too fragmentary for determination. No. 4. Lance-leaved golden-rod, *Solidago lanceolata*. No. 5. Common golden-rod, *Solidago altissima*. No. 6. Common self-leaf, *Brunella vulgaris*.—Clarence M. Weed.]

The Season in Nebraska.—Ira N. Lyman, St. Peter, Nebr., on Sept. 9, 1889, writes:

The late frost in the spring killed the early blossoms—early plums and other blossoms—just when the bees were breeding lively, and had most of their honey used up; so they were short of feed to breed fast. Some bee-men here fed their bees, and some let them get along the best they could without feeding, consequently those who fed their bees and kept them in good condition until they could get honey from later flowers, had early swarms, one man having 8 swarms issue from one colony, and his bees kept swarming until he was satisfied. Another poor fellow kept watching his bees, looking for swarming, but they did not swarm; after awhile they be-

gan to kill the drones—a sure sign of a scarcity of forage—and he began to feed some, but still they did not swarm, and away along into August and September his bees began to swarm, and then the crop of honey was cut off again by cool nights, and the bees began to think that winter was coming, so they began to kill drones and ceased swarming again. Some bee-keepers had two or three swarms, some one, and some none. Another bee-man had a lot of bees, and got only a few swarms; he said that he did not want any, and would not let them swarm—as though he could keep them from it, when he has some in the Langstroth hive, some in other hives, and some in box-hives without any frames! But he says that it is a good season for honey, but not good for swarming. The bees had only about three days to gather basswood honey, so Dr. Porter says; he lives in a good place for that kind of honey, and has a great many bees. I live about nine miles from linden timber, but we have an innumerable variety of blossoms along the East Bow creek, that are good honey-producing blossoms. I will report the amount of honey gathered after awhile, when it is taken off of the hives, if I can get the estimate near enough to be worth while to report.

The Stinging-Bug.—R. S. Russell, Zionsville, Ind., on Aug. 26, 1889, writes:

I send you a pair, male and female, of our Indiana bee-catchers. Please give their name in the valuable BEE JOURNAL. They resemble a pair of small bull-stags, under the glass.

We requested Prof. Cook to reply to this, and here is what he says about the insects:

The pair of insects sent by Mr. Russell, are male and female of the stinging-bug, described and illustrated in my book, on page 419. This is *Phymata crosa*. Because of its yellow color, it can hide in yellow flowers, like golden-rod, etc,, and so all unobserved, can easily grasp and hold the luckless bee or other insect that comes within its reach. It sucks its victims bloodless by use of its powerful beak. Its thrust is very painful, and hence the term *stinging-bug*. Its forward or anterior legs are modified into jaw-like claspers; thus it is able to secure its prey. As with most insects, the female is considerably larger than the male. From its hiding habit, its modified legs (see figure in my bee-book), its stinging bite, and its destruction of bees, it is a very interesting insect.—A. J. COOK.

Bee-Keeping in Texas.—W. S. Douglass, Lexington, Texas, on Sept. 4, 1889, writes:

Bees in this section have done poorly so far. There was too much rain during June and July. Some of my Italian colonies worked in the sections, although they did not complete them. Morning-glory is yielding splendidly now, and I expect a few pounds of fine honey yet. This is a splendid honey-plant. Bees accumulate honey very fast from it, and the honey has a beautiful clear color, and is well-flavored. We also have rich-weed, privet-bush, and a few others to come yet. My apiary consists of 80 colonies, being Italians, hybrids, Albinos and blacks. The spring opened very early, and swarms began to issue early in March—one month earlier than I have ever known.

Dry Weather.—Thos. A. Anderson, Gamma, Mo., on Sept. 3, says:

The weather was very dry until yesterday. Spanish-needle is yielding no honey. Yesterday and to-day we had nice showers of rain. There is slow sale for extracted honey, but the demand for comb honey is better.

Convention Notices.

☞ The Northwestern Bee-Keepers' Society will hold its annual convention at the Commercial Hotel, corner of Lake and Dearborn Sts., in Chicago, Ills., on **Friday** and **Saturday, Oct. 11th and 12th,** at **9 a.m.** Arrangements have been made with the Hotel for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day for each person. This date occurs during the Exposition, when excursion rates on the railroads will be one fare for the round-trip, good from Oct. 10 to 14, inclusive. There has been a fair crop of honey in the West, and an old-time crowd may be expected at this revival of the Northwestern from its "hibernation."
W. Z. HUTCHINSON, *Sec.*

☞ The annual meeting and basket picnic of the Progressive Bee-Keepers' Association will be held at the residence of Mr. F. E. Dutton, near South Newbury, Geauga Co., Ohio, on Thursday, Oct. 3, 1889. All interested are invited to attend.
MISS DEMA BENNETT, *Sec.*

☞ The bee-keepers of Sangamon and adjoining counties are requested to meet in the Supervisors' Room of the Court House in Springfield, Ills., on Wednesday, Sept. 25, 1889, at 10 a.m., for the purpose of organizing a bee-keepers' association. All are invited.—D. D. Cooper, Geo. F. Robbins, C. E. Yocum.

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Romney, Ont., Canada.

New Posters for the AMERICAN BEE JOURNAL, printed in two colors, have just been printed, and will be sent free to all who can use them. They are very handsome, and will "set off" an exhibit at Fairs. It will tell Bee-Keepers how to subscribe, for "Subscriptions Received Here" is quite prominent at the bottom.

We will also send sample copies of the BEE JOURNAL, for use at Fairs, if notified a week or ten days in advance where to send them.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

We Want a Representative at all the Fairs to be held this season. The AMERICAN BEE JOURNAL is the recognized defender of the rights of the bee-keepers, against the attacks of the ignorant and prejudiced. There are thousands who would gladly subscribe to it if it were only brought to their notice, and its claims presented. When making an exhibit, please send for our *Colored Posters* and sample copies, and get up a club. In this way you will not only pay yourself for the trouble, but also aid the pursuit, and its defense all over the country.

Hastings' Perfection Feeder.—This excellent Feeder will hold a quart, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

Many Good Advertisers invite our readers to send for their descriptive Circulars, etc. It will pay to get these, and see what is for sale, by whom, at what prices, and what things are offered. Every one can learn something in this way. Please always tell advertisers *where* you saw their cards; they like to know, and we like to have them.

Prang's National Flower is the title of a beautiful pamphlet which contains two colored plates of the two most popular candidates for selection as the National Flower of America. It also has two poems, and a postal card addressed to Messrs. L. Prang & Co., Boston, Mass., with a vote to be filled up for the selection of a National flower. The pamphlet costs 25 cents, and can be obtained at this office.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

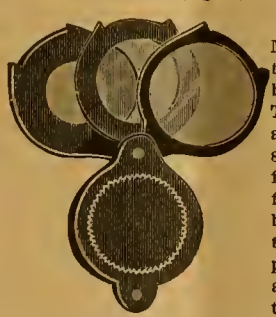
Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; sent by mail, add 1 cent each for postage.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
Toronto Globe (weekly)	2 00	1 70
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.



Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Having a Few extra sets of the AMERICAN BEE JOURNAL for the years 1887 and 1888, we will supply both these years, and 1889 and 1890, for $3.00, until all are sold. Or we will send 1888, 1889 and 1890 for $2.50, all by mail, postage paid. These are very valuable, and those who have not yet read them should lose no time in securing them.

Honey and Beeswax Market.

KANSAS CITY.

HONEY.—It is coming in slowly. We quote: 1-lb. sections of white, 15@16c.; 2-lbs., 14c. Extracted, white, 8@8½c.; dark, 7c.
Aug. 27. HAMBLIN & BEARSS, 514 Walnut St.

PHILADELPHIA.

HONEY.—That in the comb is now arriving and the demand is increasing accordingly. The outlook is still favorable for good prices for fancy honey.—We quote fancy honey in neat crates as follows: 1-lbs., white, 17@18c.; 2-lbs., 14@15c.; buckwheat 1-lbs. 12@13c.; 2-lbs., 10@11c. Off grades of all kinds generally 1 to 2 cts. less. Extracted, white clover, 8½c.; orange blossom, 7½@8c.; off grades, per gal., 60@70c
BEESWAX.—23½@24½c.
Sep. 5. WALKER & McCORD, 32 & 34 S. Water St.

DENVER.

HONEY.—We quote: New in 1-lb. sections arriving freely at 16@18c.; extracted, 6@8c.
BEESWAX.—18@20c.
Aug. 10. J. M. CLARK COM. CO., 1421 15th St.

NEW YORK.

HONEY.—Extracted, California, 7½@8c.; orange bloom, 7½@8c. White clover and basswood, 7½@8c. Common Southern, 65@75c. per gal. Fancy comb, white 1-lbs., 16c.; fair 1-lbs., 14c.; 2-lbs., 2c. less.—The New York crop being comparatively small, the Western apiarists will find a good outlet here in the East. As prices this season are about 10 per cent. lower than last season, we expect an active demand.
Aug. 21. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—New honey arriving freely, and all the shipments have been promptly closed out so far. We quote: 1-lb. white clover, according to style of package and appearance, 14@16c. Receipts of extracted increasing: demand light, at 8@8c.
BEESWAX.—25c.
Aug. 1. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—It is selling slowly yet, but with colder weather we look for more active trade. Market is well supplied with honey, it being in many hands. In lots it cannot be sold at over 13@14c., and in cases even less, if not in first-class condition. Extracted, 6@8c.; white clover and basswood, in kegs and barrels, 7c.
BEESWAX.—25c. R. A. BURNETT.
Sep. 10. 161 South Water St.

DETROIT.

HONEY.—New crop is coming in slowly, and sells at 14@15c. for comb.
BEESWAX.—23c.
Aug. 21. M. H. HUNT, Bell Branch, Mich.

ST. LOUIS.

HONEY.—We quote: Choice white clover comb, 12@12½c.; fair, 10@11c.; dark, 7@8c. Extracted, in barrels, 5@5¾c.; in cans, 6@6½c.
BEESWAX.—24c. for prime.
Aug. 21. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—We quote: Fancy white 1-lbs., 16c.; 2-lbs., 14c. Off grades about 2c. per lb. less. Buckwheat 1-lbs., 11@12c.; 2-lbs., 9@10c. Extracted basswood and clover, 8c.; orange bloom, 8c.; California amber, 7@7½c.; buckwheat, 6@6½c.; Southern, 65@70c. per gallon.
HILDRETH BROS. & SEGELKEN,
Sep. 10. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—It has arrived quite freely, but owing to warm weather, prices have had to be shaded. Our market to-day is: White 1-lbs., 16@18c.; 2-lbs., 16@18c. Extracted, 8@9c. We look for better prices later, and would not advise bee-keepers to rush honey on the market.
BEESWAX.—None on hand.
Sep. 9. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Comb, 11@16c. Demand fair for all kinds. Arrivals of extracted are good, while good comb honey is scarce in this market.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Sep. 11. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—It is selling very slowly at 14c. for 1-lb. white comb, and the prospects are for lower prices. We have been trying to hold the market to 14@15c., but parties in Iowa and Illinois are offering and selling white 1-lbs. at 12@12½c., delivered here and at other points in Kansas. Receipts are large, and in order to sell we will have to meet these prices.—Extracted, white, steady at 7@8c.; amber, 5@6c.
BEESWAX.—20c.
Sep. 14. CLEMONS, CLOON & CO., cor 4th & Walnut.

MILWAUKEE.

HONEY.—New crop is coming in and of very fine quality. Demand is fair and values easy. Choice white 1-lbs., 14@15c.; 2nd quality 1-lbs., 12½@14c.; old 1-lbs., 10@12c. Extracted, white, in tins and pails, 8@8½c.; in barrels and kegs, 7@8c.
BEESWAX.—22@25c.
Sep. 5. A. V. BISHOP, 142 W. Water St.

BEST BEES TO WINTER.

From One of the Largest Bee-Keepers in

AMERICA.

DEKALB JUNCTION, N. Y.

"The three Queens you sent me two years ago were

EXTRA GOOD ONES,

exceedingly active, and the

BEST WINTERING BEES I HAVE.

I don't care for Beauty, yet I never saw a Queen you sent out that was not a Beauty.

IRA BARBER."

300 QUEENS

of the **Best Honey-Gathering Strain** we ever had in 30 Years' Experience with THE ITALIANS,

READY TO MAIL

between Sept. 12 and 20.

☞ Prices: Tested, **$1.50**; Select Tested, **$3.00**; Warranted, **$1.00.**

All are Warranted Pure, and Safe Arrival Guaranteed. Address,

HENRY ALLEY,

37A2t **WENHAM, Essex Co., MASS.**

Mention the American Bee Journal.

FOR SALE.—Italian Bees, $5.00 per Colony. Tested and Untested Italian Queens and Bee-Keepers' Supplies.

Address, **OTTO KLEINOW,**
150 Military Ave., (opposite Fort Wayne),
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FOLDING PAPER BOXES!

THEY hold a Section of Comb Honey each, and are made so as to take the 4¼x4¼ or 5¼x6¼ Sections. Just the thing for retail dealers! Prices: $1 per 100 Boxes, or $8.50 per 1,000. ☞ The bee-keeper's name and address, and the kind of honey, printed on 1,000 or less, for 75 cents extra.

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923 & 925 W. Madison St., - CHICAGO, ILLS.

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BEFORE placing your Orders for **SUPPLIES**, write for prices on One-Piece Basswood Sections Bee-Hives, Shipping-Crates, Frames, Foundation, Smokers, etc. Address,

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P. S.—Send 10c. for Practical Hints to Bee-Keepers

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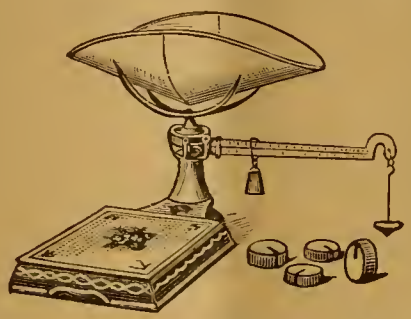
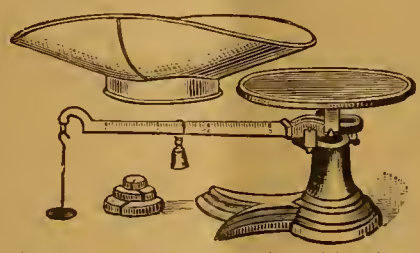
The Union or Family Scale.



This Scale has steel bearings, and it weighs from ½-ounce to 240 pounds. Price, with a Single Brass Beam, as shown in the illustration, $3.00. With Double Beam for taking the tare, $3.50.

The Little Detective Scale.



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Single beam, no scoop	$2.00.
" " tin "	2.50.
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☞ All orders filled promptly.

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THE

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UNTESTED QUEENS, 65 cents.—10 for $6.00. Select Tested, $1.50. One and 2 cent Stamps taken when Money Orders cannot be had. Make Money Orders payable at Nicholasville. Can send by Return Mail.

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High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

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LANGSTROTH'S WORK,

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The instructions for the **Rendering of Beeswax** are alone worth the price of the Book, to many bee-keepers who waste a part of their Wax in Rendering it.

This Book, "the most complete ever published," is shortly to be published in the French, Italian and German Languages, by Practical European Apiarists. It is highly recommended by all publishers of Bee-Literature in the Old World as well as in the New.

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☞ We also offer for Sale,

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of our Crop of 1889;

25 Tons of Comb Foundation

Smokers, Bee-Veils of Imported Material, &c. Send for Circular. Address,

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J. STAUFFER & SONS,
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50 Hybrid Queens,

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☞ 12-lb. **Shipping-Cases**, in the flat, no glass—10 for 75 cents.; $6 per 100.; 24-pound Shipping-Cases, 10 for $1.35; $12 per 100.

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BEE KEEPERS

Should send for my circular. It describes the best Hives, the best Cases, the best Feeders and the best Methods. Address,

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DES MOINES, IOWA.
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British Bee Journal

AND BEE-KEEPERS' ADVISER,

IS published every week, at **6s. 6d.** per annum. It contains the very best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley Herts, England.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Sept. 28, 1889. No. 39.

EDITORIAL BUZZINGS.

Honey and Bees at the Maine State Fair will have attention in our next issue, by an article written for the AMERICAN BEE JOURNAL by our friend, Mr. L. F. Abbott, editor of the Lewiston *Journal*.

At the Iowa State Fair, Mr. Geo. W. Penn, of Colfax, Iowa, took three premiums—first premium on fall extracted honey; first on beeswax, and second on fall comb honey. We congratulate him on his exhibit, which must have been a good one to have merited these premiums. Those who took the rest of the ribbons will no doubt report soon.

Prof. C. C. Blake predicts that the year 1890 will be one of very great extremes, both as to temperature and rainfall. He has published an Annual (price $2) for 1890, which he says "points out what the temperature and rainfall will be from July, 1889, to Jan. 1, 1891, in all parts of the United States and most of Canada and Europe; with advice to farmers as to what crops to plant and when, so as to avoid the unfavorable weather, and to raise fair to good crops in spite of fate and hard luck. Without this advance knowledge, it is mathematically certain that very extensive crop failures will occur next year in many parts of the country."

Notable Old Men is the subject on which that enterprising and gossipy paragraphist, Mr. Blakely Hall, wrote for *Frank Leslie's Weekly* last week. Everybody is reading his weekly contributions with peculiar interest, and this is one of the breeziest of all. The American beauty presented this week is Mrs. J. W. Mackay. She makes a handsome picture.

Digested Nectar.—We are very much surprised to find the following from Prof. Cook in *Gleanings in Bee-Culture* for Sept. 1, 1889:

Our friend Demaree has now a recruit—a doctor. This doctor—see the AMERICAN BEE JOURNAL—makes several assertions that just a little knowledge of chemistry would have prevented. Is it possible that our "M. D.'s" know nothing of chemistry? Such articles may possibly be excused in a lawyer, but from a doctor they are certainly indefensible. Even a lawyer should not attempt to enlighten the public on what he knows nothing about. His ignorance may be excusable; his misrepresentation and pose, as a teacher, are more venial. To say that nectar and honey are the same, or that sugar syrup fed to bees is identical with the honey placed in the comb, is to show entire ignorance of the subject. It is too bad that such men will write.

Now, Mr. Editor, why do not you editors get a little blue litmus paper and a little copper sulphate, or, better, Fehling's solution, and prove for yourselves the truth of this matter? Then when such articles are sent in, throw them into the waste-basket. You would not insert an article about the king-bee. To say that honey and nectar are the same, is as absurd as to say that there is a king-bee.

We are astonished at the above quotation! Our great esteem for the writer will prevent us from returning the compliment. Editors try to advance the interests of the pursuit, and not to play the tyrant. If they were to refuse to publish everything which did not agree with their views, or the theories of those in authority, there could be no advancement, and progressive knowledge would be at a stand-still.

Ridicule is not argument—neither are arrogant assertions and contemptuous epithets conclusive evidence. They rather indicate the lack of evidence, and the weakness of the cause which they are called upon to bolster up. We are therefore very sorry that the Professor should have seemingly invoked their aid.

Dr. McKinney has another article in reply to Prof. Cook, on page 616 of this issue. When professors, doctors and lawyers fail to agree—who shall decide the questions at issue?

To throw such articles into the waste-basket will no more prove their falsity than the thrusting of Galileo into the Inquisition proved that the world did not revolve on its axis! False theories can only be disproved by overwhelming and convincing arguments.

We have a particular relish for debate, but we loathe uncourteous personalities and quarrelsome contention. We enjoy either hearing or reading intellectual conflicts. The more courteous the controversy, the more profound is our admiration for it, and the more penetrating are the arguments, as a general thing.

Our good friend, Prof. Cook, we feel sure must have failed to give his article in *Gleanings*, that mature reflection which he should have done, and will be very glad, no doubt, to modify it when he realizes the peculiar position in which it now places him. He evidently penned it in an unguarded moment.

Fire has destroyed the fine exhibit of friend Emerson T. Abbott, at the St. Joseph, Mo., Exposition. The main building was entirely destroyed on the night of the 15th inst., entailing a loss of a quarter of a million of dollars, and the loss of one life.

All will sympathize with Mr. E. T. Abbott; his loss is a heavy one. He had on exhibition about all in value of what he possessed, and in one hour it was swept out of existence; and as he had no insurance, the loss is a total one. We wonder at his not taking out an insurance policy, especially when we think of his shrewd business qualities! How nice eight hundred or a thousand dollars would be to him now, in the hour of calamity. Let all take a lesson from this disaster, and insure their property against loss by fire.

Mr. Abbott has a determination, and will at once prepare to start again in the world, pay his debts, and resume his business. He is just the man that reverses cannot crush, and we bespeak for him an increased trade next season, as well as that sympathy which should flow from friend to friend.

The St. Joseph *News* of Monday contained a full account of the fire, and from it we take this item about the honey exhibit:

Crowds began to arrive from the city, which but added to the confusion. Exhibitors paced anxiously up and down the muddy paths, muttering and bemoaning their fates. Others took the matter philosophically. One poor fellow, his hat off and his arms folded, stood watching the burning buildings. "There goes all I have in the world," said he. "The result of five years' labor I placed in that building, and now I haven't fifty cents." It was Emerson T. Abbott, who had a bee and honey exhibit.

The Fall Crop of Honey, like all other crops, has varied in different locations. In some it has been large, in others only of medium size. Mr. C. H. Dibbern, of Milan, Ills., on Sept. 19, 1889, wrote thus concerning his fall crop:

"We have had frosts during the last two nights, and the honey harvest for 1889 is now over. The fall crop has not come up to our expectations; probably not more than one-half the usual fall crop has been secured. Still, as we had a full crop of white honey, we ought to be content."

Proud of the Volumes.—Dr. J. M. Hicks, of Indianapolis, Ind., thus writes of the pleasure he experiences in reading the numbers of the ILLUSTRATED HOME JOURNAL, and of his intention to bind them for his library. He says:

Its make-up is certainly of the best, and when the full numbers for the year 1889 are at hand, I intend to have the book well bound worthy of its merits, and add it to my many valuable books, such as Shuckard on the Humble and British Bees, as well as the several volumes of the AMERICAN BEE JOURNAL, *National Bee Journal*, Moon's *Bee World*, and many others I might mention, which are already bound and in my library, all of which I have saved for years, and prize very highly.

Circumstances beyond our control prevented our attending the Detroit Fair.

GLEANS OF NEWS.

Of Real Value to Bee-Keepers.—Mr. C. H. Dibbern writes to the *Western Powman* a *resume* of the Arkadelphia lawsuit, and the decision of the Supreme Court that bee-keeping is not a nuisance *per se*. He then adds:

This decision is of real value to bee-keepers, and is the first case of the kind decided by the Supreme Court and State. Hereafter people having imaginary grievances against bee-keepers will likely think twice before commencing petty suits. Bee-keepers will hereafter be responsible for the real damage that may be caused by their bees, just like any other property. More than that, no bee-keeper ought to ask.

Now while this suit was ostensibly carried on by Mr. Clark, the Bee-Keepers' Union was the "power behind the throne," and it has cost a good deal of money. Mr. Clark, being a poor man, could not have afforded the expense to carry the case to the higher court, and employ first-class legal talent. The management of the Union deserve great credit in this, as in all other cases it has ever taken up, never having lost a case.

The first thing the Union does when a case of any member comes before it, is to determine if the case is a just one. If not, he is advised at once, and a satisfactory settlement is soon made. If he is in the right, he is helped in his defense to the last.

Now is it not very strange that all bee-keepers do not belong to the Union, when all possible assessments amount to but $1 per year? Yet, strange to say, the membership is still less than 500, when it should be at least 10,000.

Some bee-keepers may have been kept out, by being afraid of becoming involved in lawsuits, but are they not much more liable to become involved in such suits by staying out? Then, too, is it not worth something to give our mite to protect a worthy man, like Mr. Clark, in his rights.

Yes, Brother Dibbern, the bee-keepers are standing in their own light in not joining the Union by the thousand. The few who have joined the Union have demonstrated what can be done in defending the pursuit. Now, if the mass of those interested, persist in withholding their influence, the Union will be unable to cope with the enemies of bee-keepers, for lack of funds; and its failure to do so, will be charged rightfully to the apathy of bee-keepers themselves—not to the weakness of the management.

The Chicago Convention will be held on **Friday and Saturday, Oct. 11 and 12, 1889.** The Railroad Traffic Association has made a rate of one fare for the round trip from any point within 200 miles of Chicago, good on Oct. 10, and can be used on any train returning after that until Monday, Oct. 14. The first session will be held at 9 o'clock in the morning of Friday, and an adjournment can be had on Saturday afternoon in time for those who may wish to return on that day. Those who can remain over Sunday will have an opportunity of visiting our magnificent churches and cathedrals in the morning and evening, and of taking a pleasant walk in the parks or riding on the boulevards in the afternoon, as their inclination and tastes may lead them.

Mr. C. Schliesmayer, of Pasadena, Calif., has sent us two large views of his apiaries. One is his home apiary, and the other is one up in the mountains. He has another apiary, the best of all, but these views show that he is an extensive apiarist. In the present poor season he has obtained 6,300 pounds of honey in the comb, and 900 pounds of extracted. The Pasadena *Star* of July 23, makes the following mention of his honey crop:

The most successful honey-producer in the county, C. Schliesmayer, drove past the *Star* office this morning with a thousand pounds of the whitest, purest-looking comb honey that bees are capable of producing, which he had just taken from his hives in the mountains north of town. It is the third load that he has taken to Los Angeles this summer, all of it beautifully put up in boxes with glass ends. Mr. Schliesmayer disproves in the most emphatic way the assertion that bee-keeping cannot be made successful in this vicinity, for a finer article than he produces would be difficult to find in California.

Mr. S. has sold his comb honey at 12½ cents per pound, and expects to sell the extracted to the same firm for 8 cents per pound.

He says: "I owe the AMERICAN BEE JOURNAL for much that I know about bee-keeping, and offer to the Editor my thanks and gratitude. I have been in the business for nearly 20 years; but I have learned more about it in the past few years, since I have read the BEE JOURNAL, than I ever knew before."

The photographs are placed into our BEE JOURNAL Album, with thanks.

The Vermont State Fair was held during the first week of this month, and was a great success. Heretofore the managers have offered no premiums for apiarian products, but this year they have done so, and this is what the Rutland *Herald* says about the exhibit:

An exhibit that attracts much admiration is that of J. H. Larrabee, of Larrabee's Point, who shows a large amount of fancy comb and extracted honey, as well as a colony of bees, including the queen, in a glass hive. A machine for pressing comb foundation is shown in operation, and full descriptions of the methods of his busy honey workers are cheerfully given to all inquiries. All the different publications relating to bee-culture are given to interested parties, as well as samples of the comb foundation. This is the first year that premiums have been offered for bees and honey, and it is hoped that hereafter a large number will compete for them.

Bee and honey shows are the attractions wherever they are suitably encouraged.

Mistakes of Bee-Keepers was the subject matter of the *Bee-Keepers' Review* last spring. Among the mistakes enumerated by the correspondents were—rearing poor queens; overstocking a locality; too much increase; too many irons in the fire; too much confidence in the statements of persons over-enthusiastic on some particular point, etc.

Convention Hand-Book.—As the convention season is just approaching, we want to direct attention to the little book which every bee-keeper needs when attending these gatherings. Here is what Mr. J. E. Pond says about it:

DEAR EDITOR:—Your little "Convention Hand-Book" is really a very handy thing. At two or three different times I have been called on to get up something for special occasions, and I have found the "Hand-Book" just the thing to save me quite an amount of time and labor, as it was a very simple matter to use the "book" as a basis, making only such few changes as were necessary to fit the special time and place.

I can cordially recommend it to any one who may desire not only information, but a *perfect form* for organization of a convention of any kind of a convention, as it will "fill the bill" completely.

Every Hand-Book contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with subjects for discussion. They sell at 50 cents each, and are nicely bound in cloth covers.

We make every subscriber this offer: Go and call on your neighbor who keeps bees and ought to take the BEE JOURNAL. Get his subscription and one dollar for a year; send it to us, and we will *present* you a copy of the Hand-Book for your trouble—by mail, postpaid. Here is a grand chance for all to get a valuable book without costing them a cent!

A New Serial Story, entitled "Heron's Wife," by Etta W. Pierce, is begun in the October number of *Frank Leslie's Popular Monthly*. The color, picturesqueness and dramatic force of this novelist have already given her a reputation as a sort of American Ouida—a reputation which this latest work from her pen will fully sustain. The literary and artistic features of this number of the magazine are even more profuse than usual.

The National Flower.—A vote was taken, as we are informed by Mr. L. F. Abbott, at the Maine State Fair, on Thursday, the third day of the Fair, by Mr. D. H. Knowlton, Secretary of the Maine Pomological Society, and resulted as follows: Golden-rod 155, lily 14, rose 13, sunflower 8, and arbutus 6. "Straws show which way the wind blows."

A correspondent on a farm requests us to record his "vote for the morning-glory, because the golden-rod is not a distinctive flower—only a weed." This reminds us of what a farmer from Jersey county, Ills., wrote to an exchange on this very subject. He says:

When it comes to putting such a detestable vine as the morning-glory ahead of the golden-rod, I think the average farmer will hold up his hands in horror, for if, in this locality, there is a weed more complained of and more hard to eradicate than the morning-glory, I have yet to find out what it may be. Cornfields are ruined by it, and the only way to get rid of it is to change crops. I never knew any one to be damaged by the graceful golden-rod, whose golden plumes nod and sway with a willowy grace unrivaled by any other flower.

The golden-rod is "our choice, first, last and all the time."

A Novel Idea.

A novel attraction in the shape of a palace of black diamonds is to be seen on the Sangamon Fair association grounds at Springfield, Ills. The entire structure is in reality a palace of coal, as it is built of rough blocks of coal dug out of the Sangamon county vein.

THE COAL PALACE.

Owing to the shortness of time at the disposal of the operators who were putting up the palace it is necessarily somewhat limited in its dimensions, but it is big enough to make a very imposing appearance. Bullard & Bullard are the architects of this building, which is certainly a picturesque feature of the Sangamon fair and Springfield's exposition. The original idea was suggested by The Illinois State Journal to Col. Charles F. Mills, secretary of the association, and in two days he had the coal operators of the city thoroughly alive with the novel idea of drawing attention to the coal of their county by erecting a palace of coal on the fair ground. The formal opening of the palace was attended with much ceremony. Senator Shelby M. Cullom delivered an address on "Coal in Commerce" and Pat H. Donnelly, late secretary of the Illinois Miners' Protective association, one on "Coal Miners," and there were also several other addresses.

Senior and Junior.

The use of "Jr." is simply to denote the younger of the same name. In the case of uncles or grandfathers residing in the same community it would be a convenience for all concerned (where the name is the same) to have the nephews or grandsons use "Jr.," while the older persons used "Sr." for senior. The significance of 1, 2 and 3 is simply to denote different persons of the same name. In congress, when two or more members of the same name appear on the list, the name of the state each comes from is printed within parentheses Where there are more than two of the same name in a family 1, 2 and 3 are sometimes used.

Set and Sit.

Discriminate between set and sit. To set means to put, to place, to plant, to fix. To sit means to rest on the haunches, to remain in a state of repose, to perch as a bird, etc. We set apart, set aside, set about and set down (some article), or (in writing). We sit on a chair, on a horse. We sit up and sit down. We set a hen, and a hen sits on eggs We should say, therefore, "as cross as a sitting (not setting) hen."

The Busy, Buzzing Bees.

Words by GEO. W. YORK. German Air.

Allegro.

1. Buzz, buzz, buzz, O - ver fields, oh so fair, Where the bees in la - bor share,
2. Buzz, buzz, buzz, Not a bee has a fear, And no i - dle - ness is here:
3. Buzz, buzz, buzz, Ev-'ry bee till the night is so hap-py in its flight,
4. Buzz, buzz, buzz, In this life we should work, And like bees nev - er shirk,

cres.

Clovers sweet, blossoms rare; There's where nectar's found, Oh, so bus - y
Bus - y they, far and near,—Hon - ey get with care. Bees in sun - ny
Nev - er tires, al-ways bright, Car - ing not for rest. Learn a les - son
For there's no place to lurk—Do our du - ty well; Then at last when

all the day, 'Mong the flow-ers do they stay, Ev-'ry bee ver - y gay,
hours a-mong Fields of flow'rs with joy-ful song. Happy strains they prolong,
from the bee As it toils for you and me. Oh so free and you see,
life is o'er, And of toil we do no more, We shall live on that shore

CHORUS.

Hon - ey all a-round. In this blooming field all day, Flowers grow in
Ring - ing in the air.
Does its ver - y best. *Chorus for 4th stanza.*
Where the an-gels dwell. In that hap-py home above, Where there is naught

bright ar-ray, Bees are there in the air, Hon - ey ev - 'ry - where.
but true love, We shall be free from care, Mu-sic ev - 'ry - where.

The Busy, Buzzing Bees, set to music on this page, is eminently fitted for use at Conventions. The words are excellent, and are just suited to the music. Those who are intending to go to the Conventions this fall will be delighted with this song, and will, no doubt, have the music as well as the words thoroughly committed to memory, so as to make "merry music" wherever they may be.

The Queen Breeders' Journal has been consolidated with the *Western Apiarian*, and the September number of the latter comes out with many additional pages. There is much room for improvement in its typographical appearance, but we hope that time and experience will accomplish that, and make it a credit to the craft. We wish it success, and with that will no doubt come the improvements.

From Two Stand-Points.

To be a woman—direst woe,
The rights of men she ne'er can know.
She cannot cast the mighty vote,
Or sound the ringing campaign note.

To be a woman—happy state,
To govern man and guide his fate,
She takes the middle of the street,
And in the horse-car gets a seat.

She has her say—more than enough—
And has it, too, without rebuff.
Creation's king, a man, is seen
'Most always vanquished by the queen.

QUERIES and REPLIES.

Square or Round Ends in the Zinc-Perforations.

Written for the American Bee Journal

Query 655.—Should the perforations in the metal used for excluding queens have square ends or round ones?—Ills.

Round ones.—A. B. MASON.

I think that it does not matter.—J. P. H. BROWN.

I doubt if it makes any difference.—C. C. MILLER.

I would prefer round ends.—M. MAHIN.

It makes no difference which, in my opinion.—G. M. DOOLITTLE.

I have used only right-angled openings. They work well.—A. J. COOK.

I do not see as it makes any difference. Perhaps round ones.—MRS. L. HARRISON.

I think that it makes very little difference.—C. H. DIBBERN.

The round ones have worked more satisfactorily with me.—W. M. BARNUM.

I think that the difference in results are too insignificant for consideration.—R. L. TAYLOR.

They are oblong with square corners, in what I have.—MAHALA B. CHADDOCK.

I do not know. I have never used any but square-cornered perforations.—EUGENE SECOR.

I will leave this question for others better qualified to answer.—J. M. HAMBAUGH.

Round ones may be an improvement, but I do not find any objection to the square ones.—P. L. VIALLON.

We would prefer long, round-end perforations, if we used queen-excluders.—DADANT & SON.

I prefer the round ends, as in my experience the bees are not so apt to fill them with propolis.—J. E. POND.

I have never seen but one "make" of the perforated-zinc that had round ends to the perforations, and the workmanship of this "make" was so inferior that I would not use it. The square-end slots give perfect satisfaction in my apiary, if the work has been nicely done. I regard the perforated-zinc excluders one of the greatest of our modern helps in the apiary.—G. W. DEMAREE.

Well, I do not know which are best, because I have had perfect success with both. Perhaps there is not enough preference to amount to enough to give it investigation.—JAMES HEDDON.

I should prefer the round corners, especially if I were manufacturing it. The sheets would be stiffer, and less liable to break at the corners. The punches and dies would last longer, with little danger of breaking in hardening and tempering.—H. D. CUTTING.

I do not think that it makes any difference. A more important question is, how to facilitate the passage of bees through perforated-zinc? But that question is fully answered in a properly constructed wood-zinc honey-board.—G. L. TINKER.

I do not think that it makes any difference. The sharp edges left in the metal by the dies, are my objection to perforated metal. Perhaps galvanized iron, punched a trifle large, and then "dipped" again, would be better than the metal now in use.—J. M. SHUCK.

The difference is not worth consideration, if the perforations are smoothly cut, so as not to leave any sharp edges.—THE EDITOR.

Making a Bee-House for Wintering Bees.

Written for the American Bee Journal

Query 656.—Last year I had only 3 colonies, and had them in the cellar, but I have 12½ now, and I cannot keep them in the cellar very well next winter; so I would like to know if a bee-house built like this would do: Say build it 12 feet long and 8 feet wide, and 8 feet high, and boards and battens on the outside, and boards on the inside with 6-inch space between, to be filled with sawdust, and banked up below on the outside. Of course it will have a good floor in it.—H. L. H., Iowa.

The cellar would be much the best, especially for the ½-colony.—G. M. DOOLITTLE.

We do not like bee-houses, unless they are entirely frost-proof.—DADANT & SON.

Yes, sir, I think that a house built as you propose, will do very well.—J. P. H. BROWN.

Your house would do very well if double the amount of space for sawdust was allowed. Also, some plan should be made for ventilating.—WILL M. BARNUM.

The general experience with such repositories has been unsatisfactory. You had better have it under ground.—C. C. MILLER.

I have had no experience in that line, but I should expect to lose that number of colonies in such a house in Michigan.—R. L. TAYLOR.

If you can make it warm enough to keep potatoes from freezing, it may do. If not, they had better be out-doors than in such a place.—EUGENE SECOR.

It will do very well, but must be perfectly dark. Care must be taken to put the hives out before it gets very warm in the spring.—C. H. DIBBERN.

Yes, your plan of house will work, but you must keep watch of the temperature. The house is very much larger than you need for so few colonies.—H. D. CUTTING.

A cave or cellar would be preferable. I do not believe that a house built above ground can be made to retain an even temperature sufficient to insure successful wintering.—J. M. HAMBAUGH.

In your locality I would rather try out-door packing. I would prefer 12 inch walls to those 6 inches thick, in the clear. You have almost too few bees now to keep such a room warm in a cold time, and you do not mention artificial heat.—JAMES HEDDON.

I do not believe that it will do. If the walls were 12 inches instead of 6, it would be better. In this climate (Indiana) I would prefer to leave them on the summer stands, with plenty of ventilation at the bottom, and sawdust or other packing on top.—M. MAHIN.

Yes, this will make a good bee-house, but I would prefer 12 inches of sawdust rather than 6. After all, I would prefer the hives on the summer stands, properly protected. See a short article on the use of straw mats in this issue.—J. M. SHUCK.

I do not think that the 6-inch sawdust space is enough for safe wintering in a bee-house above ground, in Iowa. Such a house, constructed with two feet of dry earth over the bees, and on all sides, would no doubt be a great success.—G. L. TINKER.

Such a house will not do. The wall would need to be 12 or 15 inches thick. Why not dig in the earth, roof over, and so make an out-door cellar? For our severe Northern winters, such a depository is much safer than a house, unless the walls of the latter are double, and enclose a very wide space.—A. J. COOK.

Much will depend. I keep my bees entirely on the summer stands, with even less protection. More depends upon preparation for winter, in the in-

terior of the hive, than the outside. Everything else being all right, I think that your plan will prove a success.—J. E. POND.

Do not build a house to winter bees in. Build a cave on the Doolittle plan, or winter out-doors in chaff hives. But is your cellar really too small for 12½ colonies? If in the old American hive they would of course take up considerable room, but in any modern hive, that will tier up, 12½ colonies will not take up much room.—MAHALA B. CHADDOCK.

I cannot say how such a building would answer for wintering bees further north, but I should think that a 6-inch sawdust wall would hardly keep the temperature above the freezing-point in this (Kentucky) more moderate climate, at all times. I should think that a space of 12 inches of sawdust would be much safer. Somehow or other, a house, if just a little too cold, becomes the worst sort of a place to winter bees safely.—G. W. DEMAREE.

The trouble with such above-ground repositories is that they cannot be kept at an even temperature without considerable trouble and expense. Such buildings have generally been a failure—especially where the walls are so *thin* as you suggest. The walls should be at least double the thickness mentioned, and even then are not to be recommended.—THE EDITOR.

Convention Notices.

☞ The Northwestern Bee-Keepers' Society will hold its annual convention at the Commercial Hotel, corner of Lake and Dearborn Sts., in Chicago, Ills., on **Friday** and **Saturday, Oct. 11th and 12th,** at **9 a.m.** Arrangements have been made with the Hotel for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day for each person. This date occurs during the Exposition, when excursion rates on the railroads will be one fare for the round-trip, good from Oct. 10 to 14, inclusive. There has been a fair crop of honey in the West, and an old-time crowd may be expected at this revival of the Northwestern from its "hibernation."

W. Z. HUTCHINSON, *Sec.*

☞ The annual meeting and basket picnic of the Progressive Bee-Keepers' Association will be held at the residence of Mr. F. E. Dutton, near South Newbury, Geauga Co., Ohio, on Thursday, Oct. 3, 1889. All interested are invited to attend.

MISS DEMA BENNETT, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Romney, Ont., Canada.

New Posters for the AMERICAN BEE JOURNAL, printed in two colors, have just been printed, and will be sent free to all who can use them. They are very handsome, and will "set off" an exhibit at Fairs. It will tell Bee-Keepers how to subscribe, for "Subscriptions Received Here" is quite prominent at the bottom.

We will also send sample copies of the BEE JOURNAL, for use at Fairs, if notified a week or ten days in advance where to send them.

CORRESPONDENCE.

STRAW MATS.

How to Make and Use Them on Hives in Winter.

Written for the American Bee Journal

BY J. M. SHUCK.

Bees that are to be wintered out-of-doors, in the latitude of Iowa, need protection. It has been settled that

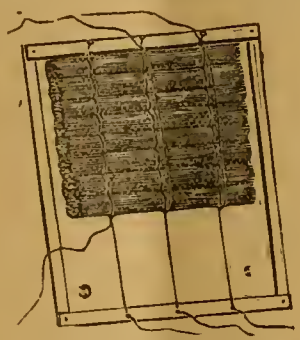

Fig. 1—Making the Straw Mats.

the chaff hive is not sufficiently portable for use where bee-keeping is carried on, on a large scale.

Some of our most successful apiarists, among whom may be mentioned Chas. F. Muth and Dadant & Son, have both recommended and used *straw mats* over the brood-nest in winter, to slowly pass the moisture of the hive and retain its heat. These mats are similar to those used over hot-bed sash, by gardeners, and are quite simple and easily made.

Unbroken rye-straw makes the best mats, but the straw of other grains may be used, and some of the most

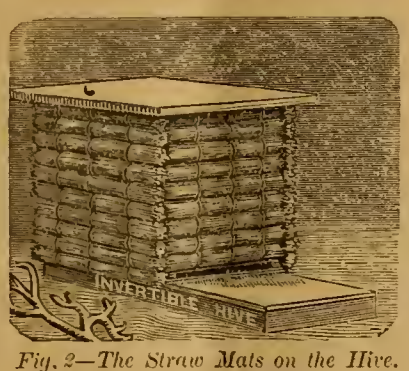

Fig. 2—The Straw Mats on the Hive.

serviceable mats I ever used were made of prairie-slough grass. Stretch a set of tarred twines over a frame (see engraving No. 1), and then fasten another set at the top of the frame for binding the bunches of straw in place. Now take a handful of straw and place it against the nails at the top of the frame, and pass the binding twines over the bunch of straw and under the twines stretched across the frame, and either knot them each time, or carry them back to the nails in the head-board, and secure them until the next handful of straw is laid in, and so on until the mat is completed.

When the proper length of mat is reached, secure each end by tying the two sets of twine securely; then by means of a stiff, straight edge, nailed lightly to the frame, and a broad, sharp chisel, cut the sides of the mat even and smooth, and to the exact size wanted.

I make for winter protection, one mat just the size of the top of the hive, and lay some ⅜-inch strips across the tops of the frames, and then lay on this a piece of wire-screen cloth to keep the mice out, then lay on top of this the mat just described. Then I make two mats just large enough to cover the ends of the hive and ends of the mat on top of the hive, and hang them on top of the hive by twines secured to each, and passing over the mat on top of the hive.

I then make two mats of proper size to cover the two sides of the hive, and the mats at the ends of the hive and on the top of the hive, secured in the same manner as the mats at the end of the hive; then a good board that does not leak, to cover the whole, with a suitable weight to keep it from blowing off; and a piece of twine tied around the whole to prevent the mats blowing out and away from the hive, completes the outfit quite perfectly.

I may add that I use a rim equal to half the depth of the brood-chamber, under the hive—in fact, one-half of an empty brood-nest is devoted to this purpose, and the hive prepared thus, appears as in engraving No. 2. Two sticks laid under the edge of the front mat provides an entrance and exit to the bees.

Des Moines, Iowa.

WOODEN CELLS.

A Hive with Wooden Combs, Said to be a Non-Swarmer.

Written for the American Bee Journal

BY PROF. A. J. COOK.

I have a colony of bees in the Aspinwall wooden-comb hive. They are rapidly storing honey in the wooden cells, and eggs are laid in the cells by the queen. Mr. Aspinwall says that they breed in these wooden cells as well as in wax comb.

The wood is coated with a thin layer of wax. Mr. Aspinwall thinks

that these hives are non-swarming. His theory is that bees never swarm unless they have drones or drone-brood. In this hive the cells are all worker size, and cannot be changed to drone size.

Of course the combs can never break down. The wood in the frames that I have, is basswood, and the bees are tearing it slightly. Mr. Aspinwall says that they will not do this if the wood is pine.

Mr. A. and one of his neighbors have tried this style of comb for two or three years, and are satisfied of its value. Of course the hive is very heavy. If it is a perfect non-swarmer, it will be valuable.

The machinery to make the combs is expensive, but the hives can be cheaply made. Mr. A. has secured a patent on this comb. I think that there is no doubt but he is justly entitled to it, as I believe it is new.

Agricultural College, Mich.

HONEY.

It is Not "Digested," but Concentrated, Nectar.

Written for the American Bee Journal

BY J. W. M'KINNEY, M. D.

The article on page 523, by Prof. Cook, would seem to demand a reply from me. I should have done so sooner, but for business engagements that occupied most of my time.

In this short reply, I shall try to avoid the contemptuous manner that cropped out so plainly in the Professor's article. He accuses me of being ignorant of the matter of which I wrote. He also says, "Nearly every assertion made," in my article, "is untrue, as any doctor ought easily to convince himself." "Cane-sugar fed to bees is changed to a glucose-like sugar, and from a neutral to an acid substance."

In answer to the Professor's contemptuously sounding interrogations, I would say that I know what "litmus paper is"—have been familiar with its use for many years; and Fehling's test for glucose, also. With these means of acquiring knowledge at my command, I fail—sadly fail—to find any evidence that nectar gathered by the honey-bee is "digested" by the insect to "make" it into honey.

From reliable sources, we learn that honey contains crystallizable sugar, and, according to Soubeiran, two other kinds of sugar, one of which is changed by acids, and has the property of turning to the right the plane of polarization, and the other not acted on by acids, and possessed of a strong left-hand rotating power. In addition to these saccharine substances, Guibourt says, "Honey also contains *mannite* and a *vegetable* acid."

It does seem to me that the Professor would recognize the fact that uncrystallizable sugar is *generated* by dissolving cane-sugar in water, and subjecting it to a sufficient heat for 24 to 48 hours, in an open vessel. The length of time necessary for such generation depends, to a great extent, upon the consistency of the syrup. Thin syrup takes on this change more readily than thicker, and occurs as readily outside the hive, and independent of the bees, as when fed to them.

The presence of such uncrystallizable sugar in sugar-cane molasses, is certainly not due to having been *digested* by bees. The presence of this sugar is an *isomeric* form of glucose, exists in honey, and in the juices of fruits, and in nectar.

The Professor has signally failed to prove the proposition, or to show that honey is "nectar digested by the bee." To simply assert it, does not prove it, by any means. His chemical formula for honey ($2\ C_6H_{12}O_6$) is as foreign from proving it "digested nectar," as the formula given by Fownes for gum-arabic (which is $C_{24}H_{22}O$) is foreign from proving that common cane-sugar is the same substance, the formula of which is written precisely the same, ($C_{24}H_{22}O_{22}$).

I did not say in my former article that "nectar and honey were identical;" but I did mean to say, and would here repeat, that whatever the change in nectar while undergoing the process of *concentration*, that change is *not* due to the *digestive function* of the bee. The rational conclusion is, that honey is nectar concentrated by the action of heat and atmospheric conditions. That honey is not always of the same consistency, even when the nectar is gathered from the same source, is due to atmospheric conditions.

Perhaps the Professor would tell us that thin honey, with a tendency to ferment, as is sometimes the case with extracted honey, is in consequence of the bees that gathered it having been troubled with indigestion or dyspepsia.

I agree with the Professor when he says, "We never gain anything by concealing or misrepresenting the truth;" and I would add, neither do we gain by adhering to an error. "*Tell the truth*" is the good motto; and the Professor thinks he would be carrying this motto out by continuing to call honey "digested nectar."

On his suggestion, I will beg the pardon of bee-keepers, and carry out the above motto, calling honey *nectar concentrated* by *heat* and *atmospheric influences*. At the same time I would insist that the physiological function of digestion of the honey-bee, be not perverted from its legitimate office to that of a laboratory for "making" honey. Nectar, digested by the bees, would not be honey, but according to physiological laws it would be chyme.

Camargo, Ills.

[The foregoing article is somewhat caustic, but the Professor's article was of the same nature, and called for a similar reply. We want to learn all that can be said on this subject, and hence have given place to the articles of Prof. Cook, Dr. McKinney and others. See editorial on page 611.—ED.]

APICULTURE.

Modern Salient Features in its Advancement.

Written for the American Bee Journal

BY HENRY K. STALEY.

I notice among a good many bee-keepers of America, that there is a feeling or inclination springing up, which is prejudiced against a man patenting the productions of his brain. And, why should he not? He uses up many hours of valuable time—during each second of which he travels with the earth in its ambit around Old Sol at the rate of 18.38 miles per second; and over which he will never pass again—at least when quick; unless the components or elements of his body, after disintegration have, through various changes, been imbibed, and through assimilation converted into the flesh of other human beings or animals; for it is within the bounds of possibility that the apple which caused the fall of our first parents, may have composed part of the apple by means of which Sir Isaac Newton was able to discover the laws of gravitation, or the force of centripity; and lavishly spends, if he's got it, his money, trying to germinate the embryo of some new invention, as yet incased in its hard-shell covering, not knowing whether he will be able to get back the money expended or not. The above anacoluthon may not be pardonable, but I just wanted to show how valuable time is.

COMPENSATION FOR OUR SERVICES AND WORKS IS IN ACCORDANCE WITH HUMAN NATURE.

Show me the man that is willing to fill a public office without receiving any emoluments therefrom; show me the man that is willing to work day

after day without receiving any compensation for his labors; and I will show you the man that is able to eat his hat. Some people think it more pleasant to receive than give—especially those politicians who are the recipients of public offices from which emanate *pinguis* emoluments *sine magno labore*.

Why, do you think that a person would run for President of the United States, if he has more money than that office pays; or, if money is no object to him, unless he had some object in view, such as praise, honor or glory? In this case he receives the praise and honor with the concomitant pecuniary interests as a secondary object. So, also, with an inventor; he not only wants the prerogative to protect his invention by a patent, but he wants the renown emanating from the article patented itself.

HONOR TO WHOM HONOR IS DUE.

And it is right that his name should go down on the pages of history as a benefactor of mankind, glittering like the diamond—throwing out scintillations of light to future generations as they come and go—among the galaxies of the brilliant names of generals, historians, doctors, astronomers and poets.

> Do you think that a person would sit up at night,
> While the mopping owl doth to the moon complain
> Of such as wander near her sacred bower,

and have his ears made the recipients of other nocturnal noises, even into that arching hour of night—when the Northern bear, tired of prowling around in the fold of the North Star, has slunk into his den—which holds the rest together, thus robbing his brain and limbs of their needed quietude, working on some book or invention—if he did not expect a guerdon? If it is a history into which he has thrown the corruscations of his genius, and made things in tradition to appear to put on the countenance of truth, like Prescott, a man, who although blind apart of his time, wrote histories so wonderful that there was no need of treating them pragmatically, because the imagination could portray and picture the cause and results well enough to suit the mind's eye; and, I repeat it, although blind, yet, like our own Huber, persevered in his studies, rendering true that old aphorism, viz:

> For nothing else is history
> But pickle of antiquity
> Where things are kept in memory
> From stinking,

had a right to have his histories copyrighted, so that no one else could steal his writings, and thus wrest from him the emoluments emanating therefrom.

So the inventor of the interchangeable brood-chamber and reversible alveary, thus showed to apiarists that, albeit the Langstroth hive has been the the standard hive for years, yet the time has come, when in the face of terrible drouths, reduced prices and the like, that a better hive was needed.

Some people think that certain inventions cannot be perfected to a greater degree. Such thoughts should be relegated to the mixen of the intellect—the *omnium gatherum* in Pandora's box of useless knowledge. And yet, to show how ridiculous it is to think in the aforesaid manner, let me show it by an example:

Edison, the great inventor, has been making new inventions in the art of telegraphy—inventions, which if put into operation, would facilitate the powers of telegraphy nearly bi-fold. The Western Union Telegraph Company seeing this, and knowing that if these inventions came into the hands of a rival company, that that company would soon be able to surpass and outshine it, has been buying up these inventions at the inventor's price. The formula for buying is like this: "How much?" "Check, $100,000."

When the Rev. L. L. Langstroth, the inventor of the movable-frame hive, and therefore *justly* able to determine the merits of the hive, wrote that vigorous article published on page 294 of the AMERICAN BEE JOURNAL for 1888, the *vox populi* against it, should have held its breath a little longer; but as it did not, the result was quite a war in the columns of our bee-periodicals.

Jealousy in apiculture is a thing not to be overlooked, because it is a worker of evil to our pursuit; therefore it naturally follows, what is the cause of all this "hue and cry" about an invention that is revolutionizing many of the ways of bee-keeping, and at the same time purveying a good to humunity? Is it envy? Then those of our apiarists who are envious concerning certain late inventions, and believe in the Bible, should remember that it says: "Thou shalt not covet thy neighbor's wife, thou shalt not covet thy neighbor's house, nor his man-servant, nor his maid-servant, nor his ox, nor his ass, nor anything that is thy neighbors." But nevertheless we know that there are some people who cannot master their fickle nature, and let jealousy reign supreme and uncondemned; and, pushed on by hatred or the love of gold, it grasps them much after the following manner:

> But gnawing jealousy out of their sight,
> Sitting alone, his bitter lips did bite.

Is it that they had the idea in their heads years ago, or fabricated the inventions, and were ashamed to get them patented, but preferred to keep them for their own private use? Then they should remember that he who goes to the trouble of patenting his inventions, and bringing them before the public into practical use, standing all the cavil and calumny besides phlebotomizing on the veins of his pecuniary life-blood, should most rightfully be considered its inventor, as Langstroth was of the movable-frame hive, and Davis of the discovery whereby the worker-larvæ of one race of bees can—with a tiny spoon or goose-quill—be transferred to queen-cells of a different race; thus in time changing the whole colony.

Luck is not the motive whereby inventions or success come, but hand labor. If any one thinks that the Langstroth and later hives came by luck, he is mistaken; for "Luck is *ignis fatuus* (a will-o'-the-wisp); you may follow it to ruin, but never to success." We must reason from what we know, if we desire to avoid a procidenee in any profession or experiments. This is the *cause of failure* with a great many uninitiated bee-keepers. They do not reason from what they know, and instead of starting in with one or two colonies, learning the business as they go along, they dash headlong, prone into the waves of bee-keeping, and not being able to swim in apicultural waters, down they go, leaving invectives behind them against our pursuit. Therefore, in order to avoid an apiarian prolapsus, we see that we must reason from what we know, and build up in knowledge as we go along.

The truth of this is quickly seen by reading of some of Langstroth's first inventions. Before he had invented the movable-frame hive, he used what we now call top-bars; the bees starting the combs on the under surface of the bars, and, building them downward, they attached the combs to the sides and bottoms of the hive. Therefore, it will be seen, that he had to cut the combs loose from the sides and bottom of the hive, before he could lift them out. This, of course, was a great improvement over the old box-hive, but still it did not suit Mr. Langstroth.

Then, by reasoning from what he knew and saw, the idea struck him, of nailing uprights to the top-bar and a slat on the bottom connecting them, the uprights. That it was a success, we, apiarists of to-day, know full well.

No, it does not pay to plunge precipitately into bee-keeping — better "prospect," as the speculator says, or according to John Lilly, "Cut thy coat according to thy cloth." Yes, it was days, months and even years of toil linked together with the hope of receiving some reward in the end; a referenee to which is given by our

Constitution, where it says, "Congress shall have power to promote the progress of science and useful arts, by securing for limited time to authors or inventors the exclusive right to their respective writings and discoveries."

COPYRIGHT AND PATENT LAWS.

And would we now tear down that defense surrounding book-writing, inventions and the like, which our forefathers built up and fostered, by throwing a wall of protection around nearly a hundred years ago? In 1790 a law was enacted, giving to authors the exclusive right to their writings for 14 years, with the liberty of making a renewal for a like period. In 1831, the term was made 28 years, with the right to renew for 14 years longer, thus making at its extreme limit for a copyright 42 years.

In 1790 Congress made provision for giving to inventors the exclusive right to their inventions or discoveries, and from that time up to the present day, the number of inventions have been accruing annually. Originally 14 years was the time for which a patent was valid, but in 1870, 17 years was made the limit.

Of course, there are some firms who take advantage of the copyright and patent laws, by leaving the patent on their invention run until its time is nearly expired, when, through some new device on the machine, another patent is obtained, giving to them the exclusive right for 17 years longer. Whether this be a manifest injustice to the people at large, absonant or consonant with the Constitution of the United States, it is nevertheless done; and this only shows the immense importance of the patent-right itself.

It is not incongruous here to ask how our country under its copyright and patent laws has prospered; and to that intent I will now apply myself.

Over 600,000 applications have been filed for patents since the year 1836, and about 400,000 patents have been granted, while the books that have been issued are too numerous to mention. Inventiveness seems to have become a national trait, even seen in the small child to the hoary-headed man, and almost every branch of business.

The United States issues four times as many patents as her maternal country, albeit Great Britain started the great wheel of civilization and progress to revolve hundreds of years ago. There was given, some years ago, at the Electrical Exposition in Paris, five gold medals as rewards for the greatest inventions and discoveries of the age. Well, how many do you think Uncle Sam took? *Just five.*

Therefore I ask, should the apiarists of America have that prerogative of patenting—which has built up our pursuit and made it recognized by our Government— taken away because a few persons who are not in favor of adhering to the ways of our forefathers, or else are goaded on by jealousy, or with the thought that the very same idea was in their mind years ago, or that they may have machinated the invention, but did not get it patented? I answer no, most emphatically, no!

If these men let procrastination rule over their ideas, which might have generated an invention, it serves them just right to lose it. Let them remember that,

> The mill will never grind again,
> With the water that has passed.

When they made the invention or discovery which, if patented, would have made them the legal inventors, they desired to be the inventors, but through lack of energy or perseverance, let the goal slip from their fingers; and now, when somebody else has—without the knowledge of any such thing having been made before—made an invention, and after having procured a patent-right for the same, brings it before the public, he kicks up a racket, and lays claim to the inventorship.

COURAGEOUS INVENTORS OF THE PAST.

It is a good thing that the world has some men who dare to bring their inventions before the public gaze; inventions which they know in time will revolutionize certain pursuits, sciences, etc.; as Ericson's iron-clad, the "Monitor," did that of naval warfare. You may remember what Themistocles said to the Greeks, when the Selphian oracle told them to seek safety behind wooden walls; he said, their ship; but in a naval contest hodiernal, there is not the least shadow of a show behind wooden walls, when one bomb, loaded with dynamite, is able at a single explosion to blow a whole ship to mammocks.

Let us take Galileo as another example of those men who dare to bring their discoveries before the public. In the night-time of Jan. 7, 1610, he espied three minute stars in a straight line, and a few evenings following, a fourth around the planet Jupiter. From the first satellite, by means of its eclipse, Roemer was able to solve that great problem—the velocity of light, which was found to be 185,410.33 miles per second, taking the mean distance of the earth from the sun at 91½ millions of miles.

This, of course, gave more confirmation to Galileo in his belief of the heliocentric theory, which recognizes the sun as the centre of the Solar System, around which all the other planets revolve. This, as will be seen, was in accordance with the Copernician theory, both of which were *vis-a-vis* to the geocentric theory, the theory which the church recognized at that time, namely, that the earth was the centre and around it the sun revolved. Picture the earth, by its force of gravitation, making the sun circle around it, when, if you will, mete out four bushels of wheat, and then take out but *one* grain, you have the *relative* size of the earth as compared with that of the sun.

THE ADVANTAGES OF MODERN TIMES.

In those days, how different it was from this land of liberty of ours! The church tried to settle all the great questions of astronomy by the Bible, but we know that book is not the place to go to settle questions of astronomy or apiculture, but religion. Accordingly they accused Galileo of imposture, heresy and blasphemy. They summoned him to appear before the Holy Inquisition, on an accusation of having taught the heliocentric theory; and having commanded him to renounce his belief as a heresy, on pain of incarceration, the church had pretty quiet rest for about 16 years. But in 1632 Galileo published his work, appellated the "System of the World," by which he tried to show the truth of Copernician theory.

On account of this, he was summoned to appear before the Inquisition of Rome, and on his knees commanded to curse his doctrine of the earth moving around the sun; yet, it is related, that when he arose from his knees, he stamped his foot on the earth, and in an undertone said, "E pur si muore"—and yet it moves.

If it had not been for Daniel Boone, in his persistent efforts toward civilization, who, at one time, was the *only* white man in Kentucky, where would our mighty West have been to-day?

If it had not been for Roemer, in discovering the rapidity of light, how would we have been able to tell the length of time it takes the light to travel from the nearest star—a Centauri—to reach us? But having the rapidity of light from Roemer, and the parallax of that star having been determined (from it the distance), we were then able to determine the time, which is 3.6 years; it being 20,832,000 millions of miles from us, or, in other words, twenty trillion, eight hundred thirty-two billions of miles away.

If it had not been for Langstroth, who by his persistent efforts brought into practical use the movable-frame hive, where would our pursuit have been to-day? It would have been as yet in the days of the honey-comb shambles, when comb, larvæ, farina and honey were squeezed together to get that delicious liquid—honey. It

would have been as yet in the slough of fogyism when box-hives reigned supreme, and had bee-moths by the thousands. Thus we see the salient importance of a revolutionizing invention or discovery in being brought before the public.

SUPERSTITIONS OF THE OLDEN TIMES.

Do you think that if the men of this age had to fight like Galileo, in bringing their inventions or discoveries before the public, that the land would be in such a prosperous condition as it now is?

To show how superstitious people were toward the close of the last century, let me quote a little incident:

Lord Campbell made the journey from Edinburg to London in three days and three nights; but judicious friends warned him of the dangers of it, and said to him, that some people who were so *rash* as to attempt it had really died from the *mere* rapidity of the motion. People now-a-days need not be afraid of the telephone, electric street railway, etc., but should remember that many of the arts employed by the Egyptians are lost arts.

The pyramid of Cheops — which covers a surface of nearly eleven acres —and is 487 feet high, stands to-day in gloomy Egypt, the dumfounder of all modern mechanical powers. The art, whereby the human body can be preserved for six thousand years, is unknown to us; hence these things are to us as lost arts, and for any one to be averse to patents in bee-keeping, is simply nonsense. I say *fiat lux*—let the light shine—for our pursuit. And I hope the saying, *ubi apes, iti mel*, will become truer and truer with respect to men, *i. e.*, where brainy men are, there may be inventions that will be patented and not stored away, like the miser does his money, by some gormandizing snouser for his own use, being too lazy to get his inventions patented, and purvey a good to humanity.

DEMONETIZATION OF OLD INVENTIONS.

And, if by their inventions—so long as they render a good to humanity—the demonitization of older inventions is effected to a greater or less degree, by all means let us have them. Who would think of giving up an elegant mansion for an old log-hut, where the hyperborean blasts whistle in and chill you to the marrow; the watch for the sun-dial, the clock for the clepydia, the telegraph or the telephone for the ancient ways of sending news, or the quick short-hand for the slow long-hand writing, when rapidity is wanted. Then why is it, that some people are averse to patenting? It must be their idiosyncracies.

Pleasant Ridge, O.

QUEEN-REARING.

The Rearing of Perfect Queens for Home Use.

Written for the American Bee Journal

BY FRANK COVERDALE.

There has been considerable written on this subject, yet there will perhaps always be room for disenssion. This rearing of perfect queens has always (ever since I have kept bees) been of very much importance to me, for it is my belief that we should have queens reared under the best of circumstances —that means, a plenty of queen-food or royal jelly, even so much so as to have a large amount left after the queen has hatched.

My first experience was to take a frame of brood from one colony and place it in a hive by itself, leaving the few bees that would stay, build there cells and care for them until ready to hatch. These queens were the poorest I ever saw, and their average life was not over one year, and they would be very apt to fail before the next year's honey harvest was gathered.

These queens would lay very small eggs; still I have not noticed any difference as to the working-quality of their offspring. It was the small amount of royal jelly that spoiled my queens.

I next adopted the Alley method, which proved to be much better, but I was not entirely satisfied with this, for the queens were not vigorous enough, or, in other words, they were stinted from the proper amount of royal jelly required to the development of a fine, large queen. So I left this, and went to work rearing queens (whenever I had a chance) under the swarming fever. In this way I got some fine queens to stock my apiary with—good, prolific queens.

This season I have been rearing some queens by the Doolittle method of "Scientific Queen-Rearing," which also gave me good, vigorous queens. One thing I did not like was, that so many of the cups would be respected, and then again the royal jelly placed in the cups would all be sipped up or removed by the bees, even so clean as to leave the larvæ for a time without nourishment. Of course, after this they were fed liberally, and the development went on finely. This being the state of affairs, I began to think over the matter thus:

Why can I not have queenless bees, or bees prepared under the Alley method, to build cells, and just when they get the cells ready to cap over, take out the large larvæ, and place in the same cells small larvæ, not over 30 to 40 hours from the egg? These I found to be well accepted, and the royal jelly was not removed. Here I had a good start in queen-food. This suited me very much.

It soon came to me, that the bees would have double the time to feed the cells, and so they did to almost double the amount of royal jelly, thus causing the bees to build the cells longer, for it is the filling up of the cells at the base, that causes the bees to build long queen-cells; so when the queens hatch, I find in almost every instance, ⅛ to ¼ of the queen-food left in the bottom of the cells.

This plan has not failed in producing queens which are, in my opinion, of the best type in all respects, if bred from good stock. There need be no pains taken as to the stock, when the cells are started. I can get double the number of cells well supplied in this way, and am detained only about three days longer for my queens; so I will have gained time.

Welton, Iowa.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Sept. —.—Maine, at Livermore Falls, Me.
J. F. Fuller, Sec., Oxford, Me.

Oct. 3.—Progressive, at South Newbury, Ohio.
Miss Dema Bennett, Sec., Bedford, O.

Oct. 11—12.—Northwestern, at Chicago, Ills.
W. Z. Hutchinson, Sec., Flint, Mich.

Dec. 4-6.—International, at Brantford, Ont., Canada.
E. F. Holtermann, Sec., Romney, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

Robbing and Carbolic Acid.—P. L. Forgan, Sloan, Iowa, on Sept. 16, 1889, says:

I find it is not generally known, even amongst experienced bee-keepers, that a few drops of carbolic acid, on wet grass or hay, placed in front of a hive that robbing has begun on, very quickly dispels the robbers; and where confusion and riot formerly prevailed, order and quiet reign again.

Well Satisfied with Results.—W. B. Thorne, Glenn, Kans., on Sept. 16, 1889, writes:

I am not willing to give all the credit of a fair honey crop to the AMERCAN BEE JOURNAL, but I will divide the honors. I was advised by the BEE JOURNAL to keep my bees in the cellar as long as danger of cold weather ex-

isted, but they would not hibernate, so out they went, only to test their ability to withstand the coldest of weather of last winter, which came in February. This "hibernated" effectually some entire colonies, and from 1 to 2 quarts of each of the remainder. This reduced my prospects very materially. Considering the poor commencement for the season's work, I cannot complain, having taken an average of 100 pounds of extracted honey per colony, and 2 pounds of comb honey; besides probably an average of 20 pounds yet untaken. I find that the profit of a 160-acre farm lies chiefly in 31 colonies of bees, the honey of which sells readily at 10 cents for extracted.

Taxing Bees in Iowa, etc.—G. B. Olney, Atlantic, Iowa, writes:

I feel very much indebted to the AMERICAN BEE JOURNAL—and why should I not, when the perusal of one article from the pen of a good, practical bee-man, set me to cogitating like unto, "Why can't I do that?" Yes, that old comb, uneven, the cells half-filled with bee-bread, the balance with honey, just put it on a warm stove; no quicker said than done, and the next day I sold that honey for cash in hand, $2.90. Just send that paper right along all the time. That $2.90 will pay for it for about three years.

Our bees are being assessed for taxation at a cash value of $2 per colony. Some owners claim that bees are a perishable article, and not taxable, and thereby refuse to list them. Are bees taxable? Stock over six months old, on the first of January of each year in this State, is subject to taxation. Worker bees are not six months old on Jan. 1. Please answer through the BEE JOURNAL, as there are others that are also in the dark.

[According to that interpretation, the worker bees would not be taxable, but the queens might be. We are not conversant with Iowa laws, and leave the matter to be answered by our Iowa lawyers.—ED.]

Making Frames for Hives, etc. Locke Ferree, Milroy, Ind., on Sept. 12, 1889, writes:

The honey season is about over here, and I have taken about 175 pounds of comb honey. I had 4 colonies in the spring, and increased them to 11. I am going to make some new hives in the winter. I am thinking of making the end-pieces, that connect the top and bottom bars, 1½ inches wide, and the top and bottom bars ⅞ of an inch, setting the frames on a metal-rabbet at the bottom of the hive. 1. Would the bees propolize the ends of the frames so that they would be hard to get out (if the edges of the ends were planed smooth), made in the above way? 2. How close should the ends of the frames come to the ends of the hive?

[1. The closed-end frames have been used for many years. The "Quinby" frame was made in that way, but the end-bars, extending below the bottom-bars, served as "legs" for the frames, and "stood" on the bottom of the hive. If they are planed smoothly, and fit tight, the bees will not think it necessary to propolize them, and they can be manipulated with comparative ease; but if they do not fit tight, there will not be much pleasure in manipulating them.

2. Just leave space enough for raising and lowering them. The passage-ways for the bees should be over the top and bottom bars, if the hives are properly constructed.—ED.]

Good Average Per Colony.—Fayette Lee, Cokato, Minn., on Sept. 12, 1889, says:

I commenced last spring with 41 colonies of bees, and have increased them to 76 colonies, and have taken 5,300 pounds of honey, 900 pounds of it being comb honey, an average of 130 pounds to the colony, spring count. The honey harvest is over for this year.

Hiving Swarms, etc.—Miss Lucy J. Sherman, Hanover, Vt., writes:

I was much amused by the article on page 521, by W. Hood, especially in his account of climbing the tree, while his wife and son stood by and ridiculed him. I never climbed a tree after bees, but I know just how it feels to see them swarm, and not have the slightest notion what to do. If I were in that man's place, the first thing would be some queen-traps, and if there was some mistake about leaving one off, or there was one hive which a trap would not fit without some tinkering, and I had not tinkered it, and the first I knew there was the swarm in the tree—I should say: "Wife, bring me an old sheet. George Washington, climb that tree and tie this rope around the limb that the bees have clustered on." Then I should take hold of the rope, and give the tree a quick jerk, and the bees would fall on the sheet, which I should fold over loosely, and carry to the hive. If this be repeated until the cluster does not return to the tree, you may be sure that you have the queen, and your swarm is safe.

Next year I shall try putting one hive above another, leaving the new swarm on the "1st flat," and the old colony on the "2d flat." That is educating bees to live in "flats." I have never had but one swarm on Sunday, and that was a "bee-atitude" not mentioned in the Sermon on the Mount.

Bees Did Well.—W. H. Fowler, Jennings, Mich., on Sept. 17, 1889, says:

My bees did very well this season. I had 2 colonies, spring count, and increased them to 5. I took 85 pounds of honey from one, and from the other I got the increase. The "Little Wonder" bee-smoker I find is a "daisy" to handle bees with.

Honey and Increase.—Henry Van Tress, Oakland, O., on Sept. 16, 1889, wrote as follows:

I commenced the season with 36 colonies of bees, mostly weak, and have taken about 2,000 pounds of honey from them, and increased to 70 good, strong colonies. I took the premiums at our Fair, on honey and bee-hives. It was not very well attended, on account of there being Fairs around us.

Best Season Ever Known.—Mrs. B. J. Livingston, Center Chain, Minn., on Sept. 16, 1889, writes:

Old bee-keepers say that this has been the best year for honey that this (Martin) county has ever known. The season has been very dry, but linden, white clover, buckwheat, and now golden-rod and Spanish-needles, all seemed to furnish honey already ripened, and all ready to seal up, as fast as gathered. It has been my first season with bees, and I dare say that I have been too much interested in studying them, to make the most of them; yet my 4 colonies have given me over 200 pounds of comb honey, mostly in one-pound sections; and I have increased them to 8, with 8 Simplicity brood-chambers heavy with honey—and surplus still coming in.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
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Toronto Globe (weekly)	2 00	1 70
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2 00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Having a Few extra sets of the AMERICAN BEE JOURNAL for the years 1887 and 1888, we will supply both these years, and 1889 and 1890, for $3.00, until all are sold. Or we will send 1888, 1889 and 1890 for $2.50, all by mail, postage paid. These are very valuable, and those who have not yet read them should lose no time in securing them.

We Want a Representative at all the Fairs to be held this season. The AMERICAN BEE JOURNAL is the recognized defender of the rights of the bee-keepers, against the attacks of the ignorant and prejudiced. There are thousands who would gladly subscribe to it if it were only brought to their notice, and its claims presented. When making an exhibit, please send for our *Colored Posters* and sample copies, and get up a club. In this way you will not only pay yourself for the trouble, but also aid the pursuit, and its defense all over the country.

Hastings' Perfection Feeder.—This excellent Feeder will hold a quart, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

Many Good Advertisers invite our readers to send for their descriptive Circulars, etc. It will pay to get these, and see what is for sale, by whom, at what prices, and what things are offered. Every one can learn something in this way. Please always tell advertisers *where* you saw their cards; they like to know, and we like to have them.

Prang's National Flower is the title of a beautiful pamphlet which contains two colored plates of the two most popular candidates for selection as the National Flower of America. It also has two poems, and a postal card addressed to Messrs. L. Prang & Co., Boston, Mass., with a vote to be filled up for the selection of a National flower. The pamphlet costs 25 cents, and can be obtained at this office.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; sent by mail, add 1 cent each for postage.

Honey and Beeswax Market.

KANSAS CITY.

HONEY.—It is coming in slowly. We quote: 1-lb. sections of white, 15@16c.; 2-lbs., 14c. Extracted, white, 8@8½c.; dark, 7c.
Aug. 27. HAMBLIN & BEARSS, 514 Walnut St.

PHILADELPHIA.

HONEY.—That in the comb is now arriving and the demand is increasing accordingly. The outlook is still favorable for good prices for fancy honey.—We quote fancy honey in neat crates as follows: 1-lbs., white, 17@18c.; 2-lbs., 14@15c.; buckwheat 1-lbs. 12@13c.; 2-lbs., 10@11c. Off grades of all kinds generally 1 to 2 cts. less. Extracted, white clover, 8½c.; orange blossom, 7½@8c.; off grades, per gal., 60@70c
BEESWAX.—23½@24½c.
Sep. 5. WALKER & McCORD, 32 & 34 S. Water St.

DENVER.

HONEY.—We quote: In one-lb. sections, 16@18c.; off colors, 14@16c. Extracted, 7@8c.
BEESWAX.20—@25c.
Sep. 20. J. M. CLARK COM. CO., 1421 15th St.

NEW YORK.

HONEY.—Extracted, white clover, basswood, orange bloom and California, 8c.; buckwheat, 6c.; common Southern, 60@70c. per galloo. Comb honey, fancy white 1-lbs., 16c.; fair 1-lbs., 14c.; fancy white 2-lbs., 14c; fair 2-lbs., 11@12c.; buckwheat 1-lbs., 10@11c. Demand is good for fancy white 1-lbs., unglassed or in paper boxes.
BEESWAX.—23@24c.
Sep. 16. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—It is arriving freely and we note some little accumulation, but all will be wanted later on. White clover 1-lbs., according to style of package and appearance, 13@15c. Dark 1-lbs., 10@11c.; 2 lbs., 8@9c. Extracted is in light demand, values ranging from 6@8c., depending upon the style of package, quality, etc.
BEESWAX.—25c.
Sep. 21. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—It is selling slowly yet, but with colder weather we look for more active trade. Market is well supplied with honey, it being in many hands. In lots it can not be sold at over 13@14c., and in cases even less, if not in first-class condition. Extracted, 6@8c.; white clover and basswood, in kegs and barrels, 7c.
BEESWAX.—25c. R. A. BURNETT.
Sep. 10. 161 South Water St.

DETROIT.

HONEY.—New crop is coming in slowly, and sells at 14@15c. for comb.
BEESWAX.—23c.
Aug. 21. M. H. HUNT, Bell Branch, Mich.

ST. LOUIS.

HONEY.—We quote: Choice white clover comb, 12@12½c.; fair, 10@11c.; dark, 7@8c. Extracted, in barrels, 5@5½c.; in cans, 6@6½c.
BEESWAX.—24c. for prime.
Aug. 21. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—We quote: Fancy white 1-lbs., 16c.; 2-lbs., 14c. Off grades about 2c. per lb. less. Buckwheat 1-lbs., 11@12c.; 2-lbs., 9@10c. Extracted basswood and clover, 8c; orange bloom, 8c.; California amber, 7@7½c.; buckwheat, 6@6½c.; Southern, 65@70c. per gallon
HILDRETH BROS. & SEGELKEN,
Sep. 10. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—It has arrived quite freely, but owing to warm weather, prices have had to be abaded. Our market to-day is: White 1-lbs., 16@18c.; 2-lbs., 16@18c. Extracted, 8@8½c. We look for better prices later, and would not advise bee-keepers to rush honey on the market.
BEESWAX.—None on hand.
Sep. 9. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Comb, 11@16c. Demand fair for all kinds. Arrivals of extracted are good, while good comb honey is scarce in this market.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Sep. 11. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—It is selling very slowly at 14c. for 1-lb. white comb, and the prospects are for lower prices. We have been trying to hold the market to 14@15c., but parties in Iowa and Illinois are offering and selling white 1-lbs. at 12@12½c., delivered here and at other points in Kansas. Receipts are large, and in order to sell we will have to meet these prices.—Extracted, white, steady at 7@8c., amber, 5@6c.
BEESWAX.—20c.
Sep. 14. CLEMONS, CLOON & CO., cor 4th & Walnut.

MILWAUKEE.

HONEY.—New crop is coming in and of very fine quality. Demand is fair and values easy. Choice white 1-lbs., 14@15c.; 2nd quality 1-lbs., 12½@14c.; old 1-lbs., 10@12c. Extracted, white, in tins and pails, 8@8½c.; in barrels and kegs, 7@8c.
BEESWAX.—22@25c.
Sep. 5. A. V. BISHOP, 142 W. Water St.

Can You Believe It?—The complete works of Charles Dickens in 15 volumes, nicely bound in paper covers, are mailed to our subscribers, postage paid, with one year's subscription—all for $2.10. No one who sees them can understand how they can be produced at that price, including postage!

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We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

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My 21st Annual Price-List of Italian, Cyprian and Holy-Land Bees, Queens and Nuclei Colonies (a specialty): also Supplies—will be sent to all who send their names and addresses. **H. H. BROWN,**
17Dtf LIGHT STREET, Columbia Co., PA.

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TO know the Causes of Things is the key to Success in any Industry. If you wish to succeed in the **Bee-Business**, you must read and become acquainted with the most Successful Methods of Bee-Management and Honey-Production.

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Contains the result of **practical experience** with Bees. It gives the Physiology of the Bee, with numerous **Quotations** from the latest Scientific Writers, the Description of the **best Hives**, Directions for the Proper Management and Handling of Bees; the most **Practical Methods of Queen-Rearing, Swarming** (Natural and Artificial), with controlling methods; instructions on Establishing Apiaries, Transferring, Shipping, Mailing, Feeding, Wintering: the best methods of producing **Comb and Extracted Honey**, the Handling an Harvesting of Honey, the Making of Comb Foundation, &c., &c.

The instructions for the **Rendering of Beeswax** are alone worth the price of the Book, to many bee-keepers who waste a part of their Wax in Rendering it.

This Book, "the most complete ever published," is shortly to be published in the French, Italian and German Languages, by Practical European Apiarists. It is highly recommended by all publishers of Bee-Literature in the Old World as well as in the New.

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THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD
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THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Oct. 5, 1889. No. 40.

EDITORIAL BUZZINGS.

Hundreds of Stars in the pretty sky;
Hundreds of shells on the shore together;
Hundreds of birds that go singing by;
Hundreds of bees in the sunny weather.

Hundreds of dewdrops to greet the dawn;
Hundreds of lambs in the purple clover;
Hundreds of butterflies on the lawn;
But only one *mother* the wide world over!

If You are Extracting, beware of extracting the honey too closely. Leave enough for winter stores, or you will repent it.

A Strong Colony of Italian bees are moth-proof. Keep them strong, and they will never be troubled with the moth.

Buffalo is suggested by the *Canadian Bee Journal* as the place for holding the International Bee-Convention in 1890. The suggestion is a wise one, and we second the motion.

The Mother of Mr. S. F. Reed, North Dorchester, N. H., died on Aug. 25, 1889. The BEE JOURNAL offers its condolence. Bro. Reed's bees are also in trouble, for he writes: "We have no honey this season; it has been too cold and wet."

Friend Doolittle has been "on the sick list" for two or three weeks. He is reported to be "around a little," but he can only do *little*—of course! A lack of circulation seems to be the main difficulty. His feet and legs seem to feel like "sticks," more than like flesh and blood; they lack warmth and feeling. The BEE JOURNAL offers its sympathy, and hopes that he will soon resume his usual health and strength.

Against Nature.—A writer in the *Western Apiarian* has a "funny" way of expressing himself on this subject. It will create a laugh, and that will be of some benefit. Here it is:

I satisfied myself years ago, that it was an absolute necessity for queens to have a chance to lay some drone-eggs, and for that reason I put into a hive that I am rearing queens from, a full drone comb, or give them an empty frame and let the bees fill it with drone comb, so that the queen can lay in it; because reason, instinct, and nature's laws and facts in sight, prove that laying drone-eggs is a rest to the spermathetic production; a preventive to rearing those diminutive worker-cell drones, and render the workers and queens of a stronger constitution.

We must not violate nature's laws, to suit our own notions, because old Dame Nature is a stern and set old critter; she carries a positive and powerful sway; and when she says, "So far, and no farther," you had better give in to her, or she will give a yank on the halter, and make your heels break your neck every time.

From such lessons, that have cost me time and money, I have been forced to abide by nature's laws, and look for a place where I can work with her help, and not against her.

I am not smart enough to outwit the old dame; and my belief is, that she has every one living by the nap of the neck.

So much for what we can or cannot do.

The Fools are not all dead yet, says the *Farm, Field and Stockman* of last week, when mentioning the "glucose and paraffine comb" story, which is going the rounds of the press now-a-days. This is its item:

The idea that comb honey is ever manufactured is as absurd as it is false, and has been refuted so many times that further denial seems superfluous, and yet we occasionally see a newspaper with an article on glucose and paraffine, and the American Encyclopedia contains a rehash of the same old slander. The fools aren't all dead yet.

Mrs. L. C. Axtell, of Rossville, Ills., writes to an exchange as follows about her honey crop:

We have had a cooler summer than is usual, but as we had an abundance of rain and a warm winter, white clover was very abundant, and about the time the clover was in the height of bloom, the weather was quite warm and moist, consequently we secured a good yield of honey from the clover, or about 50 pounds per colony in our two apiaries of 207 colonies.

The Honey Crop in England is said to be quite large this year. An exchange thus mentions the honey yield in Yorkshire, England:

It is many years since bees have had such a season for honey-gathering in the valleys as during the present summer. Although a large number of colonies were lost during the winter, with the wet and unfavorable moor season, still what remained to start the spring with have done exceptionally well, and swarmed most prolifically. The long period of bright sunshine which was experienced during the months of June and July, was the saving of the bees in this part of the county. The quality of the honey is excellent, and there is a grand heather bloom on the moors.

A Fishy Story is told about honey and gold, and is as follows:

Clinton A. Snowden, of Tacoma, saw bees going and coming from a hollow tree. He built a fire, smoked out the bees, and cut down the tree to get the honey. He found a great lot of it; but, better still, a large quantity of gold was in the hollow trunk. It had evidently been deposited there by nature, and the wise men out there think that it was "gradually washed up every year by the flow of sap, and in course of time accumulated into a solid mass." Mr. Snowden got over $7,000 for the gold.

It is foolish to say that the gold was washed up into the tree by the sap. The brain which invented the idea merits the cognomen of "sap-head," so often bandied about by urchins on the street. But that item will be copied by thousands of papers, and go the usual rounds of the press, without a thought of questioning its truthfulness.

A Handsome Present.—As the convention season is just approaching, we want to direct attention to the little book which every bee-keeper needs when attending these gatherings. Here is what Mr. J. E. Pond says about it:

DEAR EDITOR:—Your little "Convention Hand-Book" is really a very handy thing. At two or three different times I have been called on to get up something for special occasions, and I have found the "Hand-Book" just the thing to save me quite an amount of time and labor, as it was a very simple matter to use the "book" as a basis, making only such few changes as were necessary to fit the special time and place.

I can cordially recommend it to any one who may desire not only information, but a *perfect form* for organization of a convention of any kind of a convention, as it will "fill the bill" completely. J. E. POND.

Every Hand-Book contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with subjects for discussion. They sell at 50 cents each, and are nicely bound in cloth covers.

We make every subscriber this offer: Go and call on your neighbor who keeps bees and ought to take the BEE JOURNAL. Get his subscription and one dollar for a year; send it to us, and we will *present* you a copy of the Hand-Book for your trouble—by mail, postpaid. Here is a grand chance for all to get a valuable book without costing them a cent!

An Appendix to "Scientific Queen-Rearing," by G. M. Doolittle, is given in the *Second Edition*, which details his further experiments in his methods of Queen-Rearing.

This "Appendix" will be mailed free of cost to all who have the first edition, upon application at this office. It is now ready for delivery.

The "Second Edition" of this interesting book will be mailed to any address, postpaid, for $1.00.

Green's new Fruit Catalogue (Rochester, N. Y.) is on our desk. Pears a specialty.

GLEANINGS OF NEWS.

California Honey Crop.—On page 571, Mr. J. F. Brown, of Virginia, said that the Eastern market reports gave the impression that the California honey crop was "very large," and that this was used as a lever to reduce the price of honey generally. We suggested that the honey-producers of California report the true condition of affairs there, and thus aid in sustaining prices, for the benefit of all honey producers. We have received quite a number of reports from that State, and will here present them to our readers. If any one desires to use an extra copy of this BEE JOURNAL by sending it to their retailer or jobber, they can have another copy to keep "file" complete, by sending for it at once—before our stock is exhausted.

EDITOR OF THE AMERICAN BEE JOURNAL:—At your request (page 571) I send you a report of the honey crop in San Diego county, California. From the best information I can get, it will not exceed three hundred thousand pounds, or less than half the crop of 1888. The largest crop ever raised in this county was in **1878**, when over **three million pounds** was produced, and a total of about seven million pounds in Southern California.

I see an estimate of this year's crop of honey published in a San Francisco report, which is three hundred thousand pounds for Southern California. I believe this can be safely cut in two, and the one-half will exceed the actual product for this year.

The rapid settlement and clearing up of the heretofore wild lands in this county, as well as in adjacent counties, has in a great measure destroyed the bee-keeping industry. It is only in the remote districts that any considerable attention is given to the business.

Fruit-growers generally are clamoring for the removal or destruction of all apiaries in reach of their orchards or vineyards. Their requests are generally being complied with, or the incendiary torch does the work if it is not. I have "killed" and "broken up" over 700 hives of bees within one year, and had about 350 hives set on fire (probably on purpose) within the same period.

The price of honey has not been remunerative for some years, and very little attention, as compared with former years, is now given to the business.

The introduction of bee-keeping in this county in a great measure destroyed the sheep and cattle business, and now in turn the fruit and vineyard industries have destroyed bee-keeping, over a large extent of the county. These changes are in accordance with the eternal fitness of things, and the world at large is the gainer, though many there are who have suffered financially thereby.—J. S. HARBISON, San Diego, Calif.

In reply to your request for a report of the honey crop of California, I enclose a report just received from the *Western Apiarian*, of Ventura county. I think it a fair statement. You will see that the average is very small. There is not an average crop in any county in California. Some report almost an entire failure. I extracted 50 tons last year. My largest average was in 1884, viz: 237 pounds per colony. I have figured up the average since 1880, and I find it to be 70 pounds.

The following report will give the desired information for the whole county, and also present the names of most of the apiarists of this county. I have not had any faith in the honey crop since my return from the East last spring. I extracted from one apiary only. I have left the bees in first-class condition, and plenty of honey in the supers. I did expect to extract 6 tons, but decided to leave it with the bees.—W. T. RICHARDSON, Simi, Ventura Co., Calif.

The following is a Statistical Report of colonies of bees and tons of honey of apiarists of Ventura county, California, tabulated by L. E. Mercer, of the *Western Apiarian*:

Name.	Address.	Tons.	Colonies
Encinos, M.	Piru City	2	80
Dunn, Robt	"	½	280
Mawfet, —	"	6	210
Conaway, J. A	"	4	250
Whitaker, W	"	3½	300
Whitaker, T	"	3	125
Stocton, G	"	2½	200
Dunton, H. D	"	2½	150
Holser, John	"	2	111
Reasoner, Ben	"	1	100
Reasoner, O. P	"	3½	400
Seakler, W & George	"	2	275
Drake, C. M	Springville	4	160
Stewart, S	"	12	287
Fox, S	"	5	160
Stewart, J. M	"	2	150
Oliver, P	"	3½	170
Savers & Davenport	"	1½	100
Rapp, J. J	Nordhoff	10½	275
Cooper, J. D	"	¾	67
Syom, Robert	"	2	65
Willis, J. G	"	8	280
Sopher, P. M	"	2	90
Sheldon, F	"	4½	180
Barrows, T	"	½	75
Steward, G. E	"	3	150
Gridley, S. C	"	5	280
Van Curan, A	"	¼	70
Bay, George	"	4½	160
Ireland, J. D	"	3½	240
Denison, J. W	"	2	80
Jepson, T	Fillmore	2	75
McIntyre, J. F	"	10½	580
Kinney, Cyrus	"	5½	150
Arundell, T	"	14	665
Keene, Josiah	"	2	60
Strathern, R	"	7½	500
Wilkin, R	Ventura	2½	355
Mendleson, M. H	"	5	315
Reynolds, Geo	"	3	200
Walker, Lew	"	6½	400
McFarland, J	"	1	55
Fox, John	"	4	400
Mercer, L. E	"	16	1400
Brooks, J. M	"	4½	104
Quesnel, —	"	10	300
Healey, C	"	3	200
Twining, —	"	½	100
Bassett, —	Santa Paula	1	75
Alexander, W. D	"	7¾	325
Sufers, J	"	1	100
Hoar, C. E	Ventura	3	130
Easley, Woods	"	6	500
Richardson, W T	"	2	1300
Carmichael, —	"	1	450
Lowrey, E. S	Santa Barbara	4½	175
Mayham, S	Springville	2	150

In answer to the request on page 571, I will say that from every source that I can gain reliable news, the honey crop in Southern California will not average over one-third of a crop, and in some localities it is a total failure; and when you take the honey crop of Southern California out of the California honey crop, there is *very little* left.

The crop in this locality was for the following prices: Extracted, from 5 to 6 cents; comb, from 9 to 11 cents; the latter in one-pound sections.—A. J. Foss, Fallbrook, San Diego Co., Calif.

In response to the request for honey-producers of California to give an estimate of this year's crop with former years, I would say that it is about equivalent to last year's crop in the counties of Los Angeles, Ventura, Santa Barbara, San Diego, and San Bernardino, which includes the great honey fields of Southern California. Most of the crop has been sold at 6 cents per pound. The crop is about one-half of what it should be in an average season. The hot weather since July 1, precludes the idea of a fall flow of honey in this region, unless the early rains help out.—C. N. WILSON, Los Angeles, Calif.

By request I will state the exact amount of honey in this locality. I have extracted about 13,500 pounds of honey this season from 175 colonies, fall count, while I had 16,000 pounds last year from 152 colonies, fall count. Neighbor B., who keeps a good many black bees, has 12,000 pounds of extracted honey against 25,000 last year. M. has 10,000 pounds this year, against 18,000 pounds last year. F. has 18,000 pounds against 48,000 pounds last year. He lost over 100 colonies last winter. And so it is all over San Bernardino county. Only a few bee-men in the best locality (foot-hills) report about equal to last year. If there is a big honey crop in California, it is not known here. For the last two days a strong north wind has set in, and bush fires are raging all around here, destroying all the sage; so our prospects for next year are not excellent.—WM. RICHTER, San Bernardino, Calif.

The *Rural Californian* for September gives this estimate for this year's crop of honey in California:

This year's crop of California honey is in good demand, two-thirds of it has already changed hands at fair prices to the producer. The yield for the season will not exceed half what was counted on by the bee-keeper in April last, and for the interests of those permanently engaged in the business, it is perhaps best just as it is. A large crop of honey requires a large outlay for help in the handling of bees in the early part of the season, and of late years it is very difficult to get efficient, reliable help for the apiary in Southern California. A big yield of honey requires a large stock of packages in which honey is marketed, and whether one has comb or extracted honey it will cost one cent a pound to pack it for market. Then with a large crop comes low prices, and the honey producer finds large outlay; an immense amount of labor, and small pay. The high price this year, grows out of the fact that we have had three years in succession short or half crops, and the market bare in August.

The honey crop has been almost a failure here—only about 150 tons of honey in the county. That much, 150 tons, or 15 carloads, is a good deal of honey, but we often have in this county 600 tons. Our crop is 32,000 pounds. Honey is selling here in Ventura at 6¼ cents in 60-pound tins.—L.E. MERCER, Ventura, Calif.

The honey crop this year is about 3,000 pounds, while last year, with a less number of colonies of bees, we secured nearly 7,000 pounds of honey. The crop this year has averaged about 30 pounds to the colony of bees.—J. SANDERS, Box Springs, Calif.

The honey season here is very poor. A frost in the beginning of May injured the Alfalfa, I think, so that it did not bloom as well as usual, and has yielded honey very sparingly. My scale hive gains on an average one pound per day. Many colonies have stored nothing in sections. I did not have a single natural swarm. It is the poorest honey season I have known in the county for nine years.—WM. MUTH-RASMUSSEN, Independence, Inyo Co., Calif.

A Tempting Offer for those who are willing to help get new names for our JOURNALS:

Some are desirous of collecting names at once, and we would like them to do so, and thus begin early to get new readers for 1890.

We propose to all who subscribe now for 1890, to *give* them all the rest of the numbers of this year *free*—so the sooner they subscribe, the more they will get for their money.

Now, in order to pay our friends to work for our JOURNALS, we have gotten up special editions of Mr. Doolittle's "Scientific Queen-Rearing," (with Appendix), and Dr. Miller's "Year Among the Bees," bound with nice paper covers, and will *present* a copy of either book to any one who will send us two **new** subscribers for either of our JOURNALS (the BEE JOURNAL, weekly, or the HOME JOURNAL, monthly).

These editions are not for sale, but are gotten up specially for premiums for getting new subscribers. They are nicely printed, and will be sent *free* of postage, as pay for work to be done for our JOURNALS. Clubs need not be located at one post-office, and may contain one "Bee Journal" and one "Home Journal" to the same or different addresses; or both may be for either JOURNAL, as may be desired. Dickens or Waverley may be obtained for each subscriber in this club as offered on the last page of this JOURNAL.

The HOME JOURNAL is needed in every family, and it will be no trouble to get subscribers for it anywhere and among all classes of persons. For larger clubs of it, consult any issue, and our list of premiums.

Call upon your neighboring bee-keepers who are not subscribers to this JOURNAL, and secure the premium mentioned above. We strongly urge you to commence collecting names *at once*.

In sending in new subscriptions, remember to give the full address, with the county, and at the time of sending, state that the names enclosed are for premiums, if the premiums are not then selected.

Third Covers.—Since the publication of the article on "Wintering," by Mr. C. F. Muth, on page 601, there have been many inquiries as to what Mr. Muth meant by "third covers." We asked him to explain, and here is his reply:

Our brood-chambers are 20¼ inches long, outside measure. We cover them with three boards, each one of which is 6⅞ inches wide; as it takes three to cover a brood-chamber, we call them "third covers." They cover also our one and two pound section boxes. It is immaterial for wintering, whether we use third or half covers, or whether one board covers the brood-chamber. But I prefer wood to enameled cloth, for the same reason that I prefer a woolen blanket to a rubber cloth. There is always something damp and uncomfortable under the latter.

Now allow me to add something to my article on wintering, which may prove of interest to some, if it is a repetition of the old story, viz:

If your hives are prepared as described on page 601, then do not be afraid of having the combs filled, or partly filled, with bee-bread; but as bee-bread is of but little value as winter food, hang these combs towards the sides of the hives. They will cause no diarrhea, because the bee-bread will not sour, but they will prove valuable when mild weather begins, and the bees commence to breed.

Do not fear for the welfare of your bees when, in fall, they had access to cider-mills, or laid in for winter stores a stock of honey-dew. They will prosper and thrive on it, and come out healthy in the spring; and if you commence to contract the brood-chambers, to promote breeding about the beginning or middle of March, you will never envy your cellar-wintering neighbors on account of early swarms.

If I differ from the majority of bee-keepers, it does not alter the situation, for I have been as successful a bee-keeper, perhaps, as any of them, and produced as large crops of honey under greater difficulties than the most. CHAS. F. MUTH.

Cincinnati, O., Sept. 24, 1889.

Honey a Staple Article.—In order to make honey a staple article, it is absolutely essential to *create a market* for it. **This can be done** if bee-keepers are willing to undertake the work. All that is necessary is to formulate a *plan*, and then *work it out*. Are honey-producers willing to test the matter? If so, we submit a plan from Mr. H. O. Kruschke, a successful apiarist of Wisconsin, for their consideration; and we commend its careful perusal:

MR. EDITOR:—I want to make a few suggestions. I like your pamphlet on "Honey as Food and Medicine" very much, but I think it would be an improvement if a similar pamphlet was issued like the Medicine Almanacs, to be looked for every year, and be useful at all times. Get them up in large editions, and let them be attractive. The honey-producers can well afford to pay for them, because of the enhanced price of their honey. Put into it reports of what has been done with honey by the different consumers, medicinally and in culinary uses. I could furnish a good report from a neighbor of mine, who had the misfortune to lose an eye. Nothing helped him, until he used honey, though he had the best of doctors to prescribe for it. You can figure out what 100,000 can be gotten up for, how large, attractive, etc. Then how many will subscribe for them. I will take 1,000 annually, if the price does not exceed $20.00. I want to distribute them gratuitously.

They should contain directions for the care of honey; how to liquefy extracted honey when it has granulated; a brief statement that comb honey is not adulterated, etc.

These suggestions, if carried out, will put many dollars into the pockets of honey-producers. They are of more practical importance than anything I have seen brought out at any meeting of bee-keepers in the world. I am ready to pay for anything that has DOLLARS at the end of it.

H. O. KRUSCHKE.

The plan is a practical one! What is it that makes such enormous sales of the patent medicines? The persistent advertising done by their proprietors; and one of the chief methods—we may say the most successful one—is the scattering of millions of Almanacs every year into the *homes* all over the country, where they are consulted and kept for reference "the whole year round."

Mr. Kruschke, noticing the success of the Patent Medicine Almanacs, desires to test the same plan for honey, and we have promised him to put it into immediate operation, if the bee-keepers who have honey to sell will "second the motion."

The "Honey Almanac" will consist of 32 pages, with an illustrated page devoted to each month; the other pages will contain illustrations and matter about the various uses of honey for medicine and food, and a number of recipes for making honey cakes, honey cookies, honey pastry, honey snaps, honey mead and other healthful drinks made with honey; and testimonials from those who have used the various honey medicines, stating its marvelous healing and preserving power, as well as its nutritious and health-giving properties.

We will print the honey-producer's name and address on the first page, free of charge, when ordered in lots of 100 or more—in something of this style:

PRESENTED BY
JOHN DOE, SMITHSBOROUGH, IOWA.
Whose honey may be obtained at
The Grocery and Meat Market of Wm. Johnson.

This will not only tell where the honey can be obtained, but will create a reputation for the honey-producer, which will be lasting and profitable.

They will be delivered at the Express or Freight offices here at the following prices: 100 copies for $2.50; 250 copies for $6.25; 500 copies for $10.00; or, 1,000 copies for $15.00. They ought to be *scattered liberally* in order to create a universal sentiment in favor of honey consumption.

This Honey Annual should be ready for delivery in about a month, and no time, therefore can be lost, if it is to be put to a practical test this season. If sufficient quantities are spoken for *at once* to warrant the outlay, we will publish it. At least from 50,000 to 100,000 should be scattered.

Now, we would ask every one who reads this to consider whether these Almanacs would not do him considerable good in his locality in selling his honey, and giving him good returns for the outlay of the small sum necessary to get them.

If so, please sit down *at once* and write us a Postal Card, stating how many copies you will take. You need not send any money until we decide whether to publish it or not, and that will be announced in the BEE JOURNAL.

Also, we request every one who has tried recipes for making honey cakes, cookies, candy, mead, or anything for consumption where honey is used, to send such to us. Also all recipes for honey used as medicines.

Please do this **at once**, in the interest of the pursuit in general and yourself in particular. If you neglect this matter, it may cost you hundreds of dollars in the decline in price of the honey you have unsold. "*Now is the accepted time.*"

The Chicago Convention will be held on **Friday and Saturday, Oct. 11 and 12, 1889.** The Railroad Traffic Association has made a rate of one fare for the round trip from any point within 200 miles of Chicago, good on Oct. 10, and can be used on any train returning after that until Monday, Oct. 14. The first session will be held at 9 o'clock in the morning of Friday, and an adjournment can be had on Saturday afternoon in time for those who may wish to return on that day.

The Fearful Cyclonic Storm which recently devastated the Atlantic coast is pictured in *Frank Leslie's Illustrated Newspaper* this week, with wonderful accuracy and striking force. In all, ten pictures are shown, forming the leading feature of the paper this week.

THE GOLDEN-ROD.

Sweet flower that by the wayside grows,
And where the noisy brooklet flows,
How far and widespread no one knows—
Sweet Golden-rod.

A nation's suffrage flows to thee
To preside o'er its destiny
And brighten all futurity—
Loved Golden-rod.

Thy thornless stem shall teach us peace,
The arts of war to give release,
And from unholy strife to cease—
Dear Golden-rod.

Yet if war's passion shall arise,
The smoke of conflict dim our eyes,
A rod be thou to enemies—
A Golden-rod.

When peace returns, a symbol be
Of blessing and prosperity,
Which fills the arms of charity—
Bright Golden-rod.

The maiden pins thee to her breast,
By little children e'er caressed,
In love of all forever blessed—
Loved Golden-rod.

OUR GOLDEN ENSIGN.

Flower that glad rays with charm indue,
With conjuring rods evoked in saffron dye,
To vest nude hills in joy of hue,
To paint with cheer each vale's sad view,
And point above to Freedom's sapphire sky,
Our nation's beams now summon thee,
For growth of Liberty aglow to stand,
Her figured strength in bloom to be—
In garlands sun-wrought for the free,
An aureate ensign on her golden land!
—*Union, Brandon, Vt.*

QUERIES and REPLIES.

Drones from Eggs that Would Have Produced Workers.

Written for the American Bee Journal

Query 657.—1. Have the worker-bees the power to remove the fertilizing quality, and rear drones from eggs that otherwise would have produced worker-bees? I made a colony by dividing, to experiment, and did not give them a solitary drone-cell, but gave them combs built entirely on full sheets of foundation; nevertheless, they reared about a dozen drones near each of two or three of the queen-cells. 2. Where did they get the drone-eggs?—Nebraska.

1. I do not know. 2. I do not know.—MAHALA B. CHADDOCK.

1. No. 2. Probably from drone-laying workers.—DADANT & SON.

1. No, the *spermatozoa* are beyond their reach. 2. A worker laid them.—M. MAHIN.

1. I sometimes think that perhaps they have, as I have noticed the same thing.—R. L. TAYLOR.

I do not know, but your experiment would seem to demonstrate it.—C. H. DIBBERN.

1. I think not. 2. They were laid in the cells when you made the division, I presume.—J. M. HAMBAUGH.

1. No. 2. They probably "stole 'em" from some other hive. Bees have been known to do so, under similar circumstances.—WILL M. BARNUM.

1. Bees do many strange things that we do not always understand. 2. They were laid by the queen.—H. D. CUTTING.

I do not know. I have made similar observations, that I could hardly explain any other way; still, it is easy to be mistaken.—C. C. MILLER.

1. I think not. I have seen the same thing a number of times. 2. I think that the worker-bees furnished the drone-eggs.—G. L. TINKER.

They have no such power. The drone-eggs were laid by laying workers, in case they were not already laid in the comb by the queen, before you gave it to them.—J. P. H. BROWN.

I could not say. I have had the same experience that you speak of, but how the change was accomplished, I cannot tell.—G. M. DOOLITTLE.

I cannot guess. I have not paid much attention to this part of bee-culture, as I have been too busy trying to make a living out of the business.—JAMES HEDDON.

I think that they have the power to do so, but I was not aware that they used it. Your statement rather looks as though they do sometimes remove the fertilizing fluid.—EUGENE SECOR.

1. No. 2. The eggs were unfertilized when deposited by the queen, or got so by exposure or other causes. Bees have neither the power to fertilize nor unfertilize the eggs.—P. L. VIALLON.

No! I feel sure that they do not, though some bee-keepers think that they do. I should say that in the case you mention, the comb had some drone-cells, or else drone-eggs, or unimpregnated eggs in the worker-cells.—A. J. COOK.

1. I think not. 2. Queens, especially very old ones about to be superseded, sometimes lay "drone-eggs" in cells of worker size. The "drone-eggs" mentioned might have been deposited by laying-workers.—J. M. SHUCK.

1. You are entering the realms of mystery. Laying-workers might produce the state of things which you describe; in fact, there are several ways in which such a state of things might be brought about. You do not state a very full proposition, but as stated, I do not think that a positive answer can be given.—J. E. POND.

1. No. 2. The eggs had been laid by the queen that laid the worker-eggs from which the queen-cells were reared. I have often noticed that worker-bees will neglect to care for drone-eggs at certain times, when they have a good queen; while if the combs containing such eggs (drone-eggs) happen to be given to a queenless colony, the queenless bees will be careful to nurse the eggs into drones.—G. W. DEMAREE.

1. The *spermatozoa* are not under their control, nor within their reach. 2. In all probability the drone-eggs were from laying-workers.—THE EDITOR.

Bees Building Partially-Completed Queen-Cells.

Written for the American Bee Journal

Query 658.—Why do bees that have no notion of swarming, build what appears to be partially-completed queen-cells, which never contain eggs or larvæ?—L. M.

I do not know.—J. M. HAMBAUGH.

I do not know.—EUGENE SECOR.

Do they not have just a *little* idea of it?—C. C. MILLER.

That is what has often puzzled me.—C. H. DIBBERN.

I have never known them to do so, unless they were preparing to supersede their queen.—M. MAHIN.

In anticipation of the time when they may wish to swarm or supersede their queen.—R. L. TAYLOR.

The bees have an instinct to always have these queen-cell bases ready, whether they afterward conclude to use them or not.—JAMES HEDDON.

Do you know that they had no notion of swarming, when those cells were started?—H. D. CUTTING.

To show the inconsistency which prevails throughout the material kingdom. "Next."—WILL M. BARNUM.

I suppose that it is done in anticipation of a flow of nectar, that fails to come.—G. L. TINKER.

The motto, "In time of peace, prepare for war," seems to be applied to bees, as their instinct makes them always on the alert.—P. L. VIALLON.

I do not know. I do not know that bees have a *reason* for doing *anything* that they do.—J. M. SHUCK.

They build them in anticipation of that great event. They desire to keep busy, and to employ all their spare time.—J. P. H. BROWN.

I do not know what causes them to do this, but I do know that in the past I have taken advantage of this fact, in using these queen-cups for "cradles" in which to rear the best of queens.—G. M. DOOLITTLE.

It is very common to see embryo queen-cells, started by any prosperous colony when gathering honey rapidly, whether they swarm or not. But how does the querist know that the bees have "no notion of swarming," at the

time the cells are started? I have seen cells in different stages in the process of building, even to completion, or capped cells, and yet they would turn up missing, and no swarm would issue; but this proved to me that the bees did have some "notion of swarming," which was afterward abandoned. —G. W. DEMAREE.

Bees never build nor start queen-cells, unless they have some notion that a queen will be needed. Those half-grown queen-cells may have contained eggs at one time.—MAHALA B. CHADDOCK.

Do they? You ask a question, presupposing a state of things that may not exist. In case, however, that your supposed statement is correct, you are asking a question to which the only answer must be a *guess*.—J. E. POND.

How do you know that they had "no notion." The very fact that they commenced to form the cells, indicated some "notion," did it not? Like us of the *genus homo*, bees often commence a work, and from discouraging circumstances, back out. Is not yours such a case?—A. J. Cook.

When the bees commenced to build those "queen-cells" they evidently had a "notion" to swarm—but they might have expected a rich honey-yield, which the elements prevented, in some way, from coming, and, like other beings, "changed their notion," and left their building incomplete, as millions of other buildings have been started but never completed. Insect folly is no worse than man's folly. We have often heard of an unfinished building, when going to decay, called "somebody's folly."—THE EDITOR.

Convention Notices.

☞ The Northwestern Bee-Keepers' Society will hold its annual convention at the Commercial Hotel, corner of Lake and Dearborn Sts., in Chicago, Ills., on **Friday** and **Saturday, Oct. 11th and 12th**, at **9 a.m.** Arrangements have been made with the Hotel for back room, one bed, two persons, $1.75 per day, each; front room, $2.00 per day for each person. This date occurs during the Exposition, when excursion rates on the railroads will be one fare for the round-trip, good from Oct. 10 to 14, inclusive. There has been a fair crop of honey in the West, and an old-time crowd may be expected at this revival of the Northwestern from its "hibernation."
W. Z. HUTCHINSON, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Bomney, Ont., Canada.

☞ The Union Bee-Keepers' Society will meet in Mount Sterling, Brown Co., Ills., on Oct. 23 and 24, 1889. The prospects are very flattering for a grand time, and all who are interested in bees or honey are cordially invited to attend.
J. M. HAMBAUGH, *Sec.*

Subscribers who do not receive this paper promptly, will please notify us at once.

CORRESPONDENCE.

MAINE FAIR.

Bees and Honey at the Maine State Fair.

Written for the American Bee Journal
BY L. F. ABBOTT.

Maine has to add the present as the third extremely poor season for honey gathering. Three such seasons in succession, with hard winters intervening, is not very inspiring to the apiarist who has just faith enough in the business, under the most favorable conditions, to devote a few spare hours to his bees, and get what honey he can from the least outlay and care.

But there are a few bee-keepers in Maine who, while they know that bees cannot be kept profitably unless climatic and other conditions are favorable, still keep their colonies up to nearly their highest mark, as to numbers, and hope for a change for the better.

Under the depressing condition which the honey interest has been surrounded from the above cause, it was not to be expected that bee-keepers would show much enthusiasm in making an exhibit at the State Fair at Lewiston this year; but when the bee-men focused at the exhibition building on Tuesday, Sept. 10, the opening day of the fair, they shook hands all around, and looked in surprise at the splendid exhibit, both in quality and quantity, of honey displayed, and the comprehensiveness of the exhibit in other directions. In fact, as Mr. Jonathan Pike remarked—to whose activity and faithful management, with that of Mr. J. B. Mason, of the *Bee-Keepers' Advance*, the success of the apiarian exhibit in the past as well as the present season is largely due—"this is the best exhibit of the bee-interest ever made in Maine."

Then, again, to a single exhibitor, Mr. E. H. Greeley, of Clinton, is due the credit of furnishing the back-bone of the exhibit in his grand display of honey in sections, and extracted; for, be it known, while the rest of Maine has been thoroughly under a cloud, as regards the honey interest, Mr. Greeley's bees have gone swimmingly on, producing exceptionally large amounts of honey each year, while the rest of us poor fellows have had to scratch around to devise ways to keep our bees alive. Mr. Greeley attributes his success to the large amount of Alsike clover accessible to his bees, the farmers in that section all sowing it freely for the excellent hay that it produces.

While Mr. Greeley was the main exhibitor, the honey display made by Mr. Pike, of Livermore Falls, was by no means a poor one. The whole of one side of the east wing of the second floor of the large exhibition building was filled with the apiarian exhibit. The honey was mainly arranged in three large pyramids, six or more feet high, built upon the wide table or counter. The base was formed of filled glassed section-cases, and those surmounted by sections tastefully arranged with jars and glass pails of extracted honey, placed at the corners, the whole verging to a point at the top, and surmounted with a single package of some form of extracted honey. Thus arranged, the display was attractive and beautiful.

Mr. Mason, of Mechanic Falls (as also did Messrs. Pike and Greeley), in addition to his honey exhibit, had full colonies of bees, and several small colonies in observatory hives. The Italian, Carniolan and blacks were the prevailing kinds shown.

Mr. S. H. Stockman, of East Auburn, has mainly the Italians, and had a large exhibit of implements for the apiary, besides bees and honey.

Probably the most varied and extensive exhibit of implements and tools necessary to carry on work in the apiary, was made by Mr. Mason.

Mr. Costellow, of York county, had also samples of supplies. Mr. Farr, of Castle Hill, Aroostook county, had fine samples of honey in cases from that famed honey region; but Aroostook, in common with the principal portions of Maine, has experienced an "off year" in its honey products this season.

Lewiston, Maine.

FALL WORK.

The Fall Crop a Failure—Uniting Colonies, etc.

Written for the Prairie Farmer
BY MRS. L. HARRISON.

Many persons rushed off their honey, selling at a low figure, anticipating a big fall flow, as the season was wet. In this they have been disappointed; the bee-police are now marching out the drones. Bloom has been abundant, but the winds did not favor the secretion of nectar. Of course localities differ; there have been some favored spots; but as a whole, the product is not large.

A bee-master can judge intelligently of the inmates of his hives, by watching their entrance. If the colony is

strong, it can be seen readily; and if they are killing drones, he knows that honey is failing in the fields. Where drones are seen in hives after most of the colonies have destroyed them, it will generally be found that they are queenless. It is much pleasanter working with bees before the honey season closes, therefore all colonies that are not storing surplus should be examined and their contents noted.

Where a small colony is found containing a young queen, but few bees and little honey, and another with more bees and honey, but queenless, they should be moved together, and when their locality is established, they can be united. These small colonies are often the best the following season.

If uniting is done sometime before frost, the bees will have time to arrange matters to suit themselves. If the brood is taken from several small colonies, put into a new hive, with the best filled combs, and all queens removed but one, the bees can all be brushed off together, in front of it, when they will enter peaceably, as it belongs to none of them.

Combs containing but little honey can be uncapped and placed in the upper story of the hive, and a little place opened for the bees to come up, when the bees will carry the honey below, and the dry empty combs can be packed away until another season.

Many valuable young queens perish in small after-swarms, and it is the height of folly to suppose that a handful of bees can maintain warmth enough to support life during our winters in this latitude. Better remove an old queen, introduce the young one in her place, and unite enough small colonies to form a good one. The sooner this uniting is done, the better.

Peoria, Ills.

"RICH" LAWSUIT.

According to the Law, Bees Cannot Commit Trespass.

Written for the American Bee Journal
BY C. J. ROBINSON.

It appears that one of the high tribunals of our State (New York) holds that honey-bees do violate the law, and commit *trespass* at common law, if it be proven that such bees go upon lands occupied by any party other than the party who owns or has charge of the bees.

"Trespass," as defined by Blackstone, is an unlawful act, committed with force and violence (*vi et armis*) on the person, property, or relative rights of another. So it is trespass, providing my neighbor proves to the satisfaction of a Court, that my bees stung him *violently*, but I could not be made a party to such trespass—the action could only be maintained against the party who takes part in the wrongful "act."

Such being the facts, there can be no such thing as *trespass*, in law, committed by bees; that is, no act can be committed by bees that Courts can take cognizance of judicially. It is a fact that Courts do adjudicate everything, including dreams, but if not overturned, their judicial *opinions* cannot be practically enforced.

Ex-Justice Douglass Boardman, of Ithaca, who wrote the opinion in the S. W. Rich case, is not well enough versed in matters outside of a city law-office to describe an apiary as "a pig-sty, or a slaughter-house," nor could he identify either one from the other. Here, in the Sixth Judicial District, in which Mr. Boardman was elected Justice of the Supreme Court, the question of competency is ignored, and the best politician, instead of the best lawyer, "gets there."

The venerable ex-Justice, like other men of confined views, fancied that "an apiary" is a pest in a community, else he was swayed by the influence of some "pig-sty" of some sort. For one, I would let the "old gent" down compassionately kind, though he sinned above all others; for while the world's greatest men unanimously have, from time immemorial, lauded *Apis mellifica*, and their life and labors have been a loved theme for great poets and philosophers during all time; and honey-bees are alluded to in the Bible as one of God's gifts to man, especially needful to His elect. Justice Boardman, be it known, in his written judicial opinion, overrules God's written word, and likens bees to pests.

There are narrow-minded people, who fancy that honey-bees are a nuisance, and such minds are too shallow to take in the fact that bees are a real blessing, though to them the blessing is in disguise, by reason of their short-sightedness.

Fruit-Farms Need the Bees.

Some years ago, I read in one of the annual reports emanating from the National Agricultural Bureau, of a case of a lady who expended a large sum in fitting up an extensive fruit-farm. After the trees grew to bearing age, they failed to produce, though they were fruitful of bloom each year. Finally, she consulted a scientific botanist, to learn the cause of her trees' failing to grow fair crops of fruit when they bloomed profusely. The Professor advised her to put an apiary among her fruit-trees, and by acting upon this suggestion, she was made happy in witnessing her trees loaded in due time with fruit. Others might be benefited by the suggestion, for it was so ordained.

Richford, N. Y.

TOBACCO.

The Use of Tobacco Smoke on Bees, etc.

Written for the American Bee Journal
BY W. M. WOODWARD.

I use tobacco smoke with bees very frequently, and see no harm from it, while it serves very important purposes. I use it to double up colonies (in the evening), smoking lightly at first, and then take one hive and place the queen and all, right upon the other, and then smoke pretty heavily, and the job is done.

About one in ten will fight some the next morning, but the tobacco will stop it. When fighting from this cause, I have had to smoke thoroughly as often as three times, before they would give it up entirely. This proves to me that the smoke is not very harmful, at least.

As to Mr. Hill's bees (page 540), the fact that the tobacco did not kill the first swarm when in full strength, is sufficient proof that it did not kill the second, after the hive had been washed again with clean water. But I want to ask, why wash "new" or clean hives at all? It is all nonsense, as I have proved for the last five years.

Bee-hives should be clean and cool, and salt and water or anything else is all useless. Give plenty of fresh air and shade, and let the salt water alone, and the bees will be just as well off, and just as well satisfied. I am confident that the tobacco did not kill the bees, but I cannot tell what did do it.

The Season of 1889.

The honey season is past, with very indifferent results for this locality—indeed I cannot report yet what it will be. There was no clover honey, on account of rain in June, which soaked the low land where only the clover was alive. Fall honey has come very slowly, and some colonies have stored no surplus.

Increase has been large—48 colonies have increased to about 120, but some have been doubled up to keep all strong. I have about 100 colonies now, and may get 1,200 pounds of comb honey, about half nice for the kind, and the rest inferior. It is not all off yet, though I am taking it off as fast as I can.

Bonfield, Ills., Sept. 21, 1889.

WAX.

Melting Combs by the Solar Heat, etc.

Written for the Pacific Rural Press
BY E. H. SCHAEFFLE.

It is an easy matter to melt down a a lot of comb, but quite different to produce a bright, yellow wax that will command the best prices. In the bee-business it is important that everything should be made to realize the highest price, as that is usually very low. Leaving out all of the expensive appliances, there is within the reach of every bee-keeper the home-made solar wax-extractor and the old can or kettle. By the proper use of these inexpensive ways, as fine wax can be produced from the oldest brood-comb as can be obtained through the use of any patented appliance. The best results and least labor attends the

Solar Wax-Extractor.

This is a light V-shaped box into which a V-shaped tin can, with flaring sides and ends projecting above and outward, is placed. Half way down the can a tray is fitted in snugly, and over this is tacked wire-sereen cloth. Above this, far enough to allow space for wax, is the lid with a glass cover. This must be tight to keep out the bees. Place the wax on the sereen, put down the lid, set the extractor in the sunlight, and you will have bright yellow wax from all kinds of comb. Save the white, which will make an article similar to the bleached wax of commerce. In the absence of tinsmith's tools, the following

Home-Made Solar Extractor

will be found to answer every purpose, though not quite as convenient: Tack two boards together, V-shaped, have them half-inch larger than a five-gallon coal-oil can. Across the ends of this V tack boards to act as rests. This is your holder.

With a can-opener cut a coal-oil can from top to bottom, on the corner. From this cut, cut each way at each end to the next corner; bend out the sides and ends for reflectors. Half-way down the V set a snug-fitting tray covered with sereen cloth. Across the top of the V, and below the flaring sides, fit a pane of glass, or several pieces of glass can be laid across, taking care to close all the edges so as to keep the bees out. Drop your can into the V-shaped holder, put in the comb, set the extractor in the sun, and let her go!

Those who perfer to melt their comb over a fire will find that a very bright article of wax can be produced, provided the can or kettle in which the wax is melted, is clean. The wax should not be allowed to boil. Fill the kettle up with water; when the wax is melted, pour into a box set over a pan. Have the bottom of the box covered with screen cloth. Set the strained wax and water out in the hot sun, for which midday will be found the best time. Tie a cloth over the pan to keep out the bees. Allow the pan to sit until the following morning, and then take out your wax and scrape off all the dirt adhering to the under side. If you wish it extra nice, re-melt with water, and set out in the sun as before. Old black wax can in this way be very materially improved in appearance. The secret lies in plenty of water, a clean kettle, not letting the wax boil, and, the most important part, in putting the liquid wax into a hot place and keeping it there, as the slower it cools, or the longer it remains liquid the cleaner it will be, as all the dirt is given a chance to settle before the wax becomes stiff.

Murphys, Calif.

GOLDEN-ROD.

It is a Good Honey-Plant in Wisconsin.

Written for the American Bee Journal
BY PAUL SCHEURING.

Golden-rod is a valuable honey-plant, at least in some localities. Mr. Eugene Secor (page 585) wants to know if golden-rod is not over-estimated as a honey-plant. I, for one, think that it is not. I have 50 colonies 23 miles from my home, in a good golden-rod district, this year, and I got an average of 30 sections per colony of nice golden-rod honey, after Aug. 10; the sections being so well filled, and the honey so heavy, that some of the cases of 30 sections each, weigh as high as 34 pounds. The sections are 4¼x4¼x2, as I use separators. Two years ago I hived 2 swarms of bees together in one hive on Aug. 11, and took 180 pounds of golden-rod honey from them before I put them into winter quarters; but a part of this was in 1½-pound sections, and the rest in one-pound sections. I wish that Mr. Secor could be in the neighborhood of my apiary in the evening, when the bees are working on golden-rod, and just inhale the air for one minute—it is perfectly delicious!

The wild sun-flowers, of which Mr. S. speaks, are not plentiful here, but the bees work on them also, but the honey is darker than that from golden-rod, and nearly every bee has bee-bread when they work on the sun-flowers, which is not the case with golden-rod.

Once I visited a bee-keeper some 50 miles south of here, where there was plenty of golden-rod; he told me that his bees never got any honey from golden-rod, to amount to anything. I was surprised, but he assured me that it was a fact. Here the bees fairly swarm on the golden-rod, when the weather is just right. I would state that I have never had 5 pounds of buckwheat honey per colony, although there would be several hundreds of acres of it within reach of my bees. They get a little sometimes, as I can smell it, but they use it as fast as they get it.

De Pere, Wis.

BEE-SUPPLIES.

Importance of Ordering Supplies Before the Season Begins, etc.

Written for the American Bee Journal
BY REV. STEPHEN ROESE.

The season of 1889 has been the busiest with bees since I have kept them. Since swarming began, I have had not even time to correspond with friend or relative; from daylight until dark in the harness, and the worst of all was, when swarming began, my long-looked-for and expected supplies did not come—in fact they did not reach me until swarming was all over. I had to rob all old colonies of the upper stories, to put bees in, and even take frames from them to supply new swarms, hoping from one day to another for the goods to come; until finally I was compelled to rip frames out of boards, and at last I put the bees into starch, soap and candy boxes.

Such torment and anxiety of mind I do not wish to return in my future days. From sunrise to sundown, the hum of swarming was kept up—5 and 6 swarms on the wing at the same time; I could not even take time to eat my meals, and I often thought of what Gen. Wellington said at the battle of Waterloo, viz: "I wish it was night, or that Blucher would come;" but I did not wish for Blucher nor the Prussians, for it was hot enough for me without them, and the needle guns and Krupp's cannons.

One day 13 swarms came out, 6 of that number at one time, and they united in one body, clustering after a half hour's stroll all over the yard. At last they settled on the trunk of a dead apple-tree, about 6 feet from the ground, where it began to branch out. After being settled, it was a rare sight, resembling a huge bear sitting on its haunches. But the worst sight came

when I began to divide them, being impossible to hunt out the queens.

For want of time, I divided them as equally as I could, into three parts—two parts stayed, and the other third part just came out to leave. After I had hived 6 swarms before dinner, and feeling hungry as I passed by, and seeing them come out, I just put the hive back on the bottom-board, and left them with their go-away fever, until after dinner, for Mrs. R. will not wait one minute when dinner is ready. When I came out, the whole swarm lay in the bottom of the hive, as if they were cooked (a lesson for me).

I advise every bee-keeper to get his supplies long before the swarming-time, for at that season of the year, the manufacturers are in just as great a trouble and rush as the bee-keepers, and much more so; for those poor fellows, after running night and day to fill their orders, get many complaints and hard words; but I did not practice either.

Our clover honey was a good crop, but basswood did not furnish anything. Bees are busy in the forenoon now (Aug. 10) on buckwheat, and stroll idly about in the afternoon. The honey crop in this section of the county will not be more than half a crop.

Death of John Decker.

Another successful bee-man has gone to his long home. John Decker, of Plum City, Wis., recently received a telegram from his wife's relatives near Milwaukee, that his mother-in-law was dying, and they were requested to come immediately, if they wished to see her alive. Accordingly, they took the train for Milwaukee at Durant, apparently all well, and on arrival there, on Aug. 30, Mr. Decker was taken sick with brain fever, which could not be checked.

In the meantime Mrs. Decker's mother died, the fact of which Mrs. D. communicated to her three sons at home, informing them at the same time, that their father was dangerously ill—not expected to live. While one of the sons was after the mail in town, a telegram had been received at home, informing them of the father's sudden death. While the sons of the deceased prepared to go to Milwaukee, news came also from Washington Territory, that their oldest brother was not expected to live.

After all was over, it was discovered that the funerals of the father, son and mother-in-law had all taken place on the same day and hour. The death of each of them was something remarkable.

Mr. John Decker was a bee-keeper, having kept pace with late improvements, although not able to read English bee-papers in order to be posted, but experience and practice had made him what he was. He possessed a true and generous heart, and there was no place, far or near, where visitors were more welcome than at John Decker's home, and bee-keepers, especially, were gladly received.

On hearing the sad news, I felt deeply impressed with feelings of solemnity and sympathy for the bereaved, who are left to mourn the loss of the kind husband and father. They have the sympathy and best wishes of the community at large.

Maiden Rock, Wis.

HONEY-SECTIONS.

Information About the Origin of the Honey-Section.

Written for the American Bee Journal

BY J. S. HARBISON.

As some interest is being manifested by bee-keepers as to the origin of the section honey-box or "honey-section," as instance the enquiry of Mr. L. C. Whiting, on page 565, I take pleasure in giving the information.

I conceived the idea, and made the first sections of the celebrated California (or Harbison) section honey-box, during the last week of December, 1857, at Sutterville, Sacramento county, Calif.

In September, 1858, I exhibited 500 pounds of section honey, two-pound combs, at the California State Fair, held at Marysville. In 1876, I exhibited section-box honey at the International Exhibit held at Philadelphia, Pa., and was awarded the highest honors therefor.

The first case of section-box honey shipped from California, was shipped by me in the first carload of green fruits that was shipped over the Central & Union Pacific railroad to Chicago, soon after their completion.

In 1873 I shipped the first full carload of section honey that was ever shipped east, part of which I sold to C. O. Perrine, of Chicago, and the balance was sold by Mathew Graff & Co., of the same city. This was followed by a number of carloads to Chicago, and New York, in 1874.

These several shipments gave the Eastern bee-keepers the first knowledge of the invention, and subsequently enabled them to improve on the methods of manufacture, and adopt a size better suited to the wants of their local markets, though not so well suited for long and rough transportation as is required for our California product to reach the cities of the East.

San Diego, Calif., Sept. 10, 1889.

THE CROP.

Hints on Marketing the Honey Crop, etc.

Written for the Western Plowman

BY C. H. DIBBERN.

It is to be regretted that with such a yield of our magnificent white clover honey, the best produced anywhere in the world, so much is still secured in a slovenly, unmarketable shape. The farmers who have only a few colonies are especially careless in securing the honey in the best shape, and generally lack room and facilities to care for it when secured. The result is, they often chuck it into an old box, and hurry it off to town. Probably the sections (for the days of broken combs in pots and kettles are about over) will slap against each other and rattle around so that by the time town is reached, it will be in a very leaky condition.

Of course the dealer takes in the situation at once, and if he takes the honey at all, will pay about half the price that nice honey, in good condition, is worth. He in turn, to beat other store-keepers, will advertise white clover honey at an astonishingly low price. Now, when the bee-keeper who takes great care in having everything as neat and nice as it is possible to have it, comes to market with his honey, he will be asked to compete with this damaged honey in price. Now if he knows his business, and what his product is really worth, he will likely take his load home again, perhaps a sadder if not a wiser man.

Now let us see what is the remedy for this. Is it not in educating the farmer, who will keep bees, in securing and marketing his usually small crop, in a neat and business-like way? It is true the bee and agricultural papers have done much in this direction, but much more is still required to be done. Now we believe the farmer who spoils the market, wishes to get market price for his honey, but he is speedily told that it is very leaky, out of condition, if not that, it is "dirty stuff." Then if he is not satisfied at the first place or two he calls, he is generally ready to sell at what is offered by the time the story is repeated to him.

Bee-keepers cannot well protect themselves against this kind of competition, by buying up their small lots of farmers, as they have their own crops to care for. Then, too, it is often in old soiled sections with crooked, leaky combs, no separators having been used, perhaps partly in old dark comb, so that it would be entirely unsuited to go with his own nice goods.

Taking Care of the Honey.

Now that we have secured so nice a crop of honey, let us see what we had better do with it. With the beginning of August our white honey should all be taken off the hives, or it will be soiled more or less by the bees running over it. Take off all cases where sections are completed, and return such as are not sealed over, to be finished during the fall bloom.

Bee-keepers should have a work-shop and also store-room for honey. The honey, as it is brought in from the apiary, may be temporarily fitted up in the cases, but as soon as there is time, it should be emptied out, and all the sections carefully scraped of propolis, and then piled up on broad shelves around the walls of the honey, room. It is best to pile it loosely, leaving about a half-inch between the sections to allow air to circulate.

When it has been some two weeks off the hives, it should be fumigated with sulphur, to kill the wax-moth, which is sure to appear, especially if there is any pollen in any of the sections. Some bee-keepers claim that this is unnecessary, but I have never had an early crop of honey, that did not need it.

In piling up the sections it is a good plan to put paper that has been prepared with paraffine, to prevent absorbing moisture at the bottom, and between each tier of sections. There will always be some leakage, the best we can do, and this prevents the honey from any upper sections from running over those below. It also saves the honey leaking out, which can be used for bee-feed if nothing else.

Now when you wish to market the honey, get some nice, new shipping-cases with glass on at least one side. Now take a board and saw it off so it will just fit inside of the case. Now take the paraffined parchment paper, and make a pan by folding it over this board, and turning the covers, and you have a nice pan for the bottom of your shipping-case to catch any possible drip. This paper can be had very cheaply, and answers the purpose better than anything I ever saw.

Grade the Honey.

Now when you get an order, or wish to make a shipment, grade the honey, so it will run even in each case, and so that the sections next to the glass will be a fair sample of the whole. If the cases hold two tiers high of sections, put a paper between them, and a few layers of old newspapers on top. Nail on the top with small wire-nails. Cut out a stencil brand, and that parchment paper is just the thing to cut it out of, "This side up. Keep out of wet and sun." Stencil this on top of the case. The kind of honey and your address should be on one end, and the party to whom you wish to send it on the other. Common shoe blacking will do for stenciling. Honey packed in this way will go as safely by freight as by express, at about a quarter of the cost.

A Hive on the Scales.

On June 28 I placed a strong swarm on scales to see how fast honey was coming in, and found they gathered 8 pounds the first day. On July 4, when basswood was in full bloom, they gathered 15 pounds, and on the 5th 18 pounds. From that date they began to drop off, till now they gather but a pound or two per day. What puzzled me at first was, that in the morning I would find that they had lost about a pound, but that was easily accounted for by evaporation.

Then I was surprised to find that up to noon they would gain nothing at all, but this, too, was easily explained by the weight of the bees absent in the fields. These experiments are not only interesting, but valuable, as showing about how much honey is being gathered, and how fast sections and cases must be given. Thus we found that from June 28 to July 8 the bees in our apiary were bringing in more than 1,000 pounds per day. Of course this does not all go into the sections, as a certain amount is consumed by the bees. I am satisfied, however, that many bee-keepers failed in not giving room fast enough.

Milan, Ills.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Oct. 11—12.—Northwestern, at Chicago, Ills.
W. Z. Hutchinson, Sec., Flint, Mich.

Oct. 23, 24.—Union, at Mt. Sterling, Ills.
J. M. Hambaugh, Sec., Spring, Ills.

Dec. 4-6.—International, at Brantford, Ont., Canada.
R. F. Holtermann, Sec., Romney, Ont.

1890.

May 2.—Susquehanna Co., at Hopbottom, Pa.
H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

Beginning in Bee-Keeping.—Mrs. J. M. Null, Miami, Mo., on Sept. 17, 1889, writes:

Since Aug. 10 I have been the happy possessor of an apiary; and could any one know how long and ardently such a state of things have been wished for by myself, then, and then only, could be realized how proud I am; but I shall not remain so very long, unless I can make a success of bee-keeping. My bees are Italians (110 colonies); and have produced 16,000 pounds of extracted white clover honey this season, under the manipulation of Mr. T. A. Anderson, their previous owner, who seemed too modest to report, but I think they deserve praise, even though their manager seeks not fame. The bees have on hand 6,000 pounds of fall honey, and are still working.

I should like to hear the remainder of that man's story, who improvised a Christmas tree (see page 522) on the spur of the moment. It was real amusing. Give us the benefit of another laugh. Mrs. Harrison spoke of a high board-fence as protection to passing teams, etc.; will she please state how high such a fence should be? and what kind would be best? Would it have to be tight?

Bees in Good Condition.—B. F. Pratt, Dixon, Ills., on Sept. 16, says:

Bees have done well here this year. I had 6 colonies in the spring, and I now have 25. I have taken 700 pounds of honey, and all of my bees are in good condition for winter.

Good Average Per Colony.—Arthur F. Brown, Huntington, Fla., on Sept. 19, 1889, says:

Bees are doing well. I expect a good harvest from the fall bloom, which is just opening. My 3 best colonies, up to date, have given 96, 97, and 103 pounds of comb honey; 82 pounds was the average for the whole apiary.

Nameless Bee-Disease.—Alonzo Skinner, Mesa, Ariz., on Sept. 17, 1889, writes:

Mr. Thielmann's article, on page 584, seems to demand further explanation from me. In reply, I would say that some of the colonies that were affected last season, were purchased from other parties, and some of them were here at the time when the first one was affected. I would further state that I do a good deal of work with other people's bees, and I found quite a number of colonies affected last summer, but have only found one colony affected this summer, and that was my own. I feel positive that the so-called "nameless bee-disease" comes from nothing but a lack of salt in their food, and I think that if bee-keepers would place salt where the bees could have access to it, it would do a great deal of good.

Superiority of Florida Honey.—John Craycraft, Altoona, Fla., on Sept. 11, 1889, writes:

The AMERICAN BEE JOURNAL has been with us so long that I do not wish to part company with it. Its words of advice are good and timely, and much of the correspondence is a delight, but some of it is not necessary or applicable to this climate. My crop of honey was fair—8 gallons per colony, and as fair a grade and as good as could be wished for. I have only 20 colonies, but I obtained 160 gallons of honey, and all sold at $1.00 per gallon. I could sell a great deal more of such honey. My bees are along the St. Johns river at St. Francis. The honey gathered along the river is of the very best kind—far superior to the honey out on the pine lands. This I know from experience, by having bees in both places. I do not want to see Florida honey classed as "Southern honey," and sold at a price as such is usually sold. The orange-blossom honey, the wild grape-vine honey, and the palmetto honey, cannot be surpassed by clover or linden.

Susquehanna Co., Convention.—H. M. Seeley, Harford, Pa., on Sept. 16, 1889, writes:

The Susquehanna County Bee-Keepers' Association met at New Milford, Pa., on Sept. 14, 1889, with only a small number present. The following subjects were freely discussed: How to prevent an increase of stock; and how to prepare bees for winter. The honey-crop was reported light, with bees working on honey-dew to some extent. The next meeting will be held at the Exchange Hotel, at Hopbottom, Pa., on Saturday, May 2, 1889.

Foul Brood.—Mr. G. F. Davidson, Fairview, Tex., on Sept. 26, 1889, writes:

I very much fear that foul brood is among my bees, although I cannot tell, as I never saw any bees affected with it. I have about 100 colonies, and have not bought any queens from the North on account of this disease, though there has been considerable foul brood around San Antonio, some 30 miles distant. I will describe, as nearly as I can, the way my bees are affected.

In early spring I had one colony that showed a brown, sticky substance on the alighting-board, and on the ground in front of the hive. The colony soon perished. I gave the combs to other colonies, and about two months ago I noticed the same thing in front of another hive. In the meanwhile, I had read several articles in the BEE JOURNAL on foul brood and its symptoms; I examined the hive, and found dead larvæ in all stages in the cells, though it was perfectly white, and had no offensive smell, and no concave cell-caps, as described in the BEE JOURNAL. I destroyed this colony immediately, and burned the combs and frames. Now I have another colony affected in the same manner; they drag out the larvæ and bees ready to hatch, in front of the hive, clean and white without any smell. I treated them with strong brine, and in about two hours I went to the hive, and the ground in front was black with dead and dying bees. They looked as though they were gorged with honey. Upon mashing them, I found it to be thick, yellow matter, very much like pollen. I will wait until I get information from some one of experience, before doing anything more.

Light Crop of Honey.—C. E. Woodward, Xenia, Ohio, on Sept. 23, 1889, says:

The honey crop in the southern section of Ohio is very light this season, owing to the drouth. Bee-keepers will not realize half a crop. Swarming has been the order of the day. Bees are mostly in good condition. The fall crop amounts to nothing.

Castor-Oil Plant.—Dr. G. W. Bristline, Mount Pleasant, Texas, on Sept. 21, 1889, writes:

Can any of the readers of the BEE JOURNAL give information as to the value of castor-oil plant as a honey-plant? It grows very well here, and the bees work on the bloom from its first appearance in June until frost, and last year they were gathering pollen from it after Christmas. It is not planted here for market, and I have only a limited number, so I cannot tell as to its value for honey, but the bees will not leave it for any other flower; and they work all day, over and over again, crowding each other off the bloom. Will some one living in a locality where it is cultivated for market, please give us this information?

Getting Bees Out of Supers.—J. M. Burtch, Morrison, Ills., on Sept. 19, 1889, writes;

On page 600, James Heddon says: "The bee-keeper is away behind the times at present who does not get the bees all out of his supers before he takes them from the hive." He will confer a favor upon myself and other "away behind" bee-keepers, if he will tell us how to get them out; or, better, give us the most approved method of removing surplus cases. I have tried two methods—one, that of smoking them down, which is not successful, as frequently they will not budge, no matter how hard you smoke them; the other, that of raising the cover or the case, on a cold night, which is more successful, but is too cruel to be practiced.

[We asked Mr. Heddon to reply to the foregoing, but he says that the method of getting the bees out of the supers before they are taken from the hives is not his invention, and the inventor does "not wish to have it published at present, if ever."—ED.]

Flowing with Milk and Honey—Daniel Sheldon, Strawberry Point, Iowa, on Sept. 24, 1889, says:

Bee-keepers in this part of the State are well satisfied with the results of the season. Truly this part of the Iowa dairy-belt is "a land flowing with milk and honey." Bees have swarmed profusely, favoring those who wanted an increase of colonies. They have stored honey in the greatest abundance. Those problems in bee-keeping which looked so hard, look easier now, after reading the AMERICAN BEE JOURNAL for two years. My son shot a king-bird lately; it was crammed with bees.

Golden-Rod as a Honey-Plant.—W. A. Harris, New York, N. Y., on Sept. 23, 1889, writes:

I notice on page 585, an article by Mr. Eugene Secor, relative to the "golden-rod" being over-rated; this has long been my opinion. Would it not be worth while to call for an expression of opinion in the BEE JOURNAL, as to its value as a honey-producer? Mr. Doolittle said to me some years ago, that he "had never obtained a pound of honey from golden-rod, to his knowledge." In this locality the whole country is covered with it, yet we very rarely see a single bee on it, or find any honey being brought into the hives. We have two varieties here only—perhaps some of the other varieties may produce nectar while these may not. I have watched it for many seasons, in the hope of its producing in some year, but I have always been disappointed. I wish it were otherwise, as it is so abundant.

[Yes; let us have a general expression of opinion on the subject. We want the facts.—ED.]

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

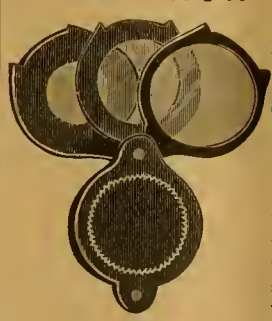
A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
Toronto Globe (weekly)	2 00	1 70
How to Propagate Fruit	1 50	1 25
History of National Society	1 50	1 25
American Poultry Journal	2 25	1 50

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.



Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Having a Few extra sets of the AMERICAN BEE JOURNAL for the years 1887 and 1888, we will supply both these years, and 1889 and 1890, for $3.00, until all are sold. Or we will send 1888, 1889 and 1890 for $2.50, all by mail, postage paid. These are very valuable, and those who have not yet read them should lose no time in securing them.

Honey and Beeswax Market.

KANSAS CITY.

HONEY.—White clover and linden 1-lbs., fancy, 14@15c.; good, 13@14c.; dark, 12c.; the same in 2-lbs., 13@14c.; dark, 12c. Extracted, white, 8c.; dark, 7c. Demand is good. Sales large for this time of year.
Sep. 27. HAMBLIN & BEARSS, 514 Walnut St.

PHILADELPHIA.

HONEY.—That in the comb is now arriving and the demand is increasing accordingly. The outlook is still favorable for good prices for fancy honey.—We quote fancy honey in neat crates as follows: 1-lbs., white, 17@18c.; 2-lbs., 14@15c.; buckwheat 1-lbs. 12@13c.; 2-lbs., 10@11c. Off grades of all kinds generally 1 to 2 cts. less. Extracted, white clover, 8½c.; orange blossom, 7½@8c.; off grades, per gal., 60@70c
BEESWAX.—23½@24½c.
Sep. 5. WALKER & McCORD, 32 & 34 S. Water St.

DENVER

HONEY.—We quote: In one-lb. sections, 16@18c.; off colors, 14@16c. Extracted, 7@8c.
BEESWAX.—24@25c.
Sep. 20. J. M. CLARK COM. CO., 1421 15th St.

NEW YORK.

HONEY.—Extracted, white clover, basswood, orange bloom and California, 8c.; buckwheat, 6c.; common Southern, 60@70c. per gallon. Comb honey, fancy white 1-lbs., 16c.; fair 1-lbs., 14c.; fancy white 2-lbs., 14c; fair 2-lbs., 11@12c.; buckwheat 1-lbs., 10@11c. Demand is good for fancy white 1-lbs., unglassed or in paper boxes.
BEESWAX.—23@24c.
Sep. 16. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—It is arriving freely and we note some little accumulation, but all will be wanted later on. White clover 1-lbs., according to style of package and appearance, 13@15c. Dark 1-lbs., 10@11c.; 2-lbs., 8@9c. Extracted is in light demand, values ranging from 6@8c., depending upon the style of package, quality, etc.
BEESWAX.—25c.
Sep. 21. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—It is selling slowly yet, but with colder weather we look for more active trade. Market is well supplied with honey, it being in many hands. In lots it cannot be sold at over 13@14c., and in cases even less, if not in first-class condition. Extracted, 6@8c.; white clover and basswood, in kegs and barrels, 7c.
BEESWAX.—25c. R. A. BURNETT,
Sep. 10. 161 South Water St.

DETROIT.

HONEY.—New crop is coming in slowly, and sells at 14@15c. for comb.
BEESWAX.—23c.
Aug. 21. M. H. HUNT, Bell Branch, Mich.

ST. LOUIS.

HONEY.—We quote: Choice white clover comb, 12@12½c.; fair, 10@11c.; dark, 7@8c. Extracted, in barrels, 5@5¾c.; in cans, 6@6½c.
BEESWAX.—24c. for prime.
Aug. 21. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—We quote: Fancy white 1-lbs., 16c.; 2-lbs., 14c. Off grades about 2c. per lb. less. Buckwheat 1-lbs., 11@12c.; 2-lbs., 9@10c. Extracted basswood and clover, 8c.; orange bloom, 8c.; California amber, 7@7½c.; buckwheat, 6@6½c.; Southern, 65@70c. per gallon
HILDRETH BROS. & SEGELKEN,
Sep. 10. 28 & 30 W. Broadway, near Duane St.

BOSTON

HONEY.—Receipts have been a little in excess of sales, and there has been a disposition on the part of some to reduce prices. We quote: 1-lbs., 16@18c.; 2-lbs., 16@17c. Extracted is stronger in price, and promises to be even higher, the market being from 8@9c.
BEESWAX.—None on hand.
Sep. 23. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Comb, 11@16c. Demand fair for all kinds. Arrivals of extracted are good, while good comb honey is scarce in this market.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Sep. 11. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—It is selling very slowly at 14c. for 1-lb. white comb, and the prospects are for lower prices. We have been trying to hold the market to 14@15c., but parties in Iowa and Illinois are offering and selling white 1-lbs. at 12@12½c., delivered here and at other points in Kansas. Receipts are large, and in order to sell we will have to meet these prices.—Extracted, white, steady at 7@8c.; amber, 5@6c.
BEESWAX.—20c.
Sep. 14. CLEMONS, CLOON & CO., cor 4th & Walnut.

MILWAUKEE.

HONEY.—New crop is coming in and of very fine quality. Demand is fair and values easy. Choice white 1-lbs., 14@15c.; 2nd quality 1-lbs., 12½@14c.; old 1-lbs., 10@12c. Extracted, white, in tins and pails, 8@8½c.; in barrels and kegs, 7@8c.
BEESWAX.—22@25c.
Sep. 5. A. V. BISHOP, 142 W. Water St.

Can You Believe It?—The complete works of Charles Dickens in 15 volumes, or Waverley Novels in 12 volumes, both nicely bound in paper covers, are mailed to our subscribers, postage paid, with one year's subscription—all for $2.10; or both Dickens' Works and Waverley Novels and the AMERICAN BEE JOURNAL till Dec. 31, 1890, for $3.00. No one who sees them can understand how they can be produced at that price, including postage!

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FOR marketing **HONEY,** and New York is a good market. We make liberal advances in **CASH** on Consignments, sell quickly at highest obtainable market prices, and pay the net proceeds immediately after the Honey has been sold.

We charge 5 **per cent.** for Commission and **Guarantee of Payment,** and 5 **cents** on each Crate for Cartage, Storage, Labor and Fire Insurance.

Please write to us full particulars as to Quality, Style of Packages, Gross and Net Weights.

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FOR
Packing Bees for Winter.

THIS consists of small pieces about the size of a pea, and is an excellent thing for packing Bees in winter. Prices: In original packages of 100 pounds, $4.00, measuring 14 bushels.; smaller quantities, 10 cents per lb.; or a scamless sack, containing 15 lbs., $1.00.

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No. 1, $2.00...No. 2, $1.75...No. 3, $1.50.
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SQUARE GLASS HONEY-JARS, etc.

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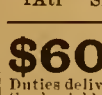

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36A26t
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ONLY $3.00 a Colony for **BEES** in frame hives—all straight combs, with enough stores for winter. Must be sold within the next **15 Days.** Address, **C. W. BRADISH,**
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RERUM COGNOSCERE CAUSAS,

TO know the Causes of Things is the key to Success in any Industry. If you wish to succeed in the **Bee-Business,** you must read and become acquainted with the most Successful Methods of Bee-Management and Honey-Production.

LANGSTROTH'S WORK,
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Contains the result of **practical experience** with Bees. It gives the Physiology of the Bee, with numerous **Quotations** from the latest Scientific Writers, the Description of the **best Hives,** Directions for the Proper Management and Handling of Bees; the most **Practical Methods of Queen-Rearing, Swarming** (Natural and Artificial), with controlling methods; instructions on Establishing Apiaries, Transferring, Shipping, Mailing, Feeding, Wintering; the best methods of producing **Comb and Extracted Honey,** the Handling an Harvesting of Honey, the Making of Comb Foundation, &c., &c.

The instructions for the **Rendering of Beeswax** are alone worth the price of the Book, to many bee-keepers who waste a part of their Wax in Rendering it.

This Book, "the most complete ever published," is shortly to be published in the French, Italian and German Languages, by Practical European Apiarists. It is highly recommended by all publishers of Bee-Literature in the Old World as well as in the New.

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WE are now offering our No. 1 V-Groove Sections in lots of 500, at $3 per 1,000; No. 2 Sections at $2 per 1,000. For prices on Foundation, Hives, Shipping-Crates, &c., &c., send for Price-List. Address,

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REARED under the Swarming Impulse—for Sale at 50 cents each.

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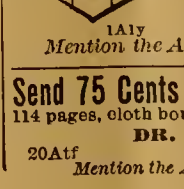

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Send 75 Cents for my Book, entitled—"A Year among the Bees:"—114 pages, cloth bound. Address,

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Oct. 12, 1889. No. 41.

EDITORIAL BUZZINGS.

Please Read the article on page 627 of last week's JOURNAL, on how to make "Honey a Staple Article," and then send us a Postal Card, if you have not already done so.

A Swarm of Bees at the Paris Exposition was the cause of considerable excitement some time ago. Here is the account of it, as given in an exchange:

One morning lately, about eleven o'clock, considerable excitement was caused in the Food-Products and Agricultural Galleries of the Paris Exhibition by the issuing of an immense swarm of bees from one of the observation hives exhibited by Mr. Blow, of Welwyn, Herts. The swarm settled on the top of one of the highest elm-trees, about 60 feet above the roadway. Several ladders were tied together and placed against the tree, but those who climbed into it were unable to reach the bees. Eventually the owner succeeded in approaching the fugitives, and successfully "hived" the swarm.

D. R. Emery, editor of the Apiary Department of the Colorado *Farmer*, thus "goes for" the fellow who wrote that article for the Philadelphia *Record* on "Bogus Comb Honey:"

Why are not persons or papers as quick to state truths as falsehoods? A small "insinuation of evil" or "error" is caught "on the fly," while genuine truth and character must come with a retinue of witnesses and proof!

The writer must have had a contract to fill a half column in his paper, and to show it was simply *talk*, he concludes with a statement that "a Berkshire county bee-rearer lamented that *his bees could not work in the dark*; so he crossed his bees on lightning bugs, and now has bees with lanterns for dark nights. He is now trying to make a cross breed with gum coats and rubber boots for rainy weather."

Why does not the fool make paraffine and glucose honey, if it is such a sure and easy thing made, and not bother with his patent bees?

Friends, do not be alarmed; the occupation of our invaluable friends, the honey-bees, is not yet superseded. Down with the lies.

Well Done.—In these days when the newspapers and periodicals seem bent on publishing falsehoods about manufactured honey, it is refreshing to see the *City and Country*, published at 225 West 23rd St., New York, come out in favor of our pursuit. Its Apiary Department is in charge of A. H. Duff, of Kansas, and its September number devotes three columns to the defense of the purity of comb honey. It starts out with this paragraph:

We are all aware that a certain class of newspapers are very eager for sensational stories, and it seems that they have but little regard for the truth, and the consequences are, falsehoods are sent out broadcast over the country, doing great injury that takes months and years to patch up, and the following, among many other slurs of the kind that have been cast at the bee-keeping fraternity, is now going the rounds of this class of newspapers. From the AMERICAN BEE JOURNAL of recent date, which shows up one of these deliberate lies, we copy the following:

It then copied our editorial entire, from page 436, refuting the calumnies of the Philadelphia *Record*, and other papers, and stating that Bro. Root had offered $1,000 to any one who would take him to the place where comb honey is manufactured by machinery, etc. Then the *City and Country* details the uses of comb foundation, and adds:

This is just how far machinery goes towards manufacturing honey. We broadly assert that all such claims that comb honey is manufactured by machinery, and paraffine used for comb and glucose to fill the comb, etc., are *utter falsehoods in every particular*. It never was done, it can't be done, and it never will be done.

Any and every reader of the *City and Country* is entitled to the above $1,000 reward if they can show up one person or persons, or firms, engaged at this business.

It then quotes another misrepresentation from the Cleveland *Plain Dealer*, giving a rehash of the article from the Philadelphia *Record*. *City and Country* sums up its reply in these words:

Now, we wish to give the Cleveland *Plain Dealer* a pointer: A. I. Root, of Medina, Ohio (and, by the way, it is but a short distance from Cleveland), has a standing reward of $1,000 for such comb honey as you describe. Now is your chance, put up your manufactured honey and take the money. If you cannot do this, then we will expect you to correct the malicious, injurious falsehood that appeared in your paper.

That is just right! The *City and Country* is entitled to our thanks for its manly defense of our industry. If other papers would only be as fair and honorable, we should have nothing to complain of. Mr. W. C. Turner, the Managing Editor, is worthy of our hearty commendation.

Subscribers who do not receive this paper promptly, will please notify us at once.

The Australasian *Bee Journal* for September notices the result of the Arkadelphia bee-lawsuit, and adds:

The Union deserves the hearty support of all America bee-keepers, for had they not persistently fought out these cases in the law courts, without doubt a grievous wrong would have have been inflicted upon American bee-keepers.

We have two cases now on hand, both appeals to higher courts, and we hope that the record of the Union will not be broken in these. So far it has not lost *one* of its suits, a record which is beyond all reasonable expectation, and compares very favorably with any other similar organization in existence.

If its friends, and those who are benefited by its labors, rally around its standard as they should do, the Manager of the Union will do his best to bear off the victory in these suits. But it takes money as well as brains to do that work, and there ought to be ten thousand bee-keepers who would gladly spring to their feet and offer their membership fees *at once*, so that the Union could hire the best law talent in existence, and thereby insure in advance the victory—for our cause is just!

Mr. R. McKnight's exhibit in the Apiary Department at the Toronto Industrial was undoubtedly the attraction of that section of the exhibition. The *Empire* says of it:

In this department Mr. R. McKnight, of the Homewood Apiary, Owen Sound, who has done much to encourage bee-culture in Ontario, has for several seasons past been laboring to make the exhibit an attractive one, and while the large number of prizes he took this year attested the excellence of the various grades of honey shown by him, crowds were attracted around his exhibit from the handsome appearance it presented. It was certainly the finest and most artistically arranged display that has ever been seen in the Apiary Department.

The exhibit was awarded 4 first, 3 second, and 2 third prizes. In addition to these, Mr. McKnight secured a silver medal for the best style of tins for holding extracted honey, and also a bronze medal for the best assortment of glass for the same purpose.—*Owen Sound Times.*

Bee-Disease in California.—L. E. Mercer, of Ventura, Calif., writes to *Gleanings* about a singular disease with which the apiaries in California are affected each succeeding season. He says:

This disease appears every spring and summer in a very few hives in nearly every apiary in the county, but it has caused no serious alarm until recently. The bees usually get over it themselves, but we do not get much honey from the colonies that are so affected. A friend on the Ojai has been experimenting a little with the colonies that were thus diseased. He took the queen out and replaced her with another from a healthy hive. The disease entirely disappeared; and from putting the queen from the diseased colony into a colony that was perfectly healthy, it also became diseased in a very short time.

GLEAMS OF NEWS.

Poisoned Honey.—A New Zealand paper gives the following remarkable account of poison existing in honey. It says:

Mr. R. de Thierry has given the *Herald* some important information on the subject. He states that on one occasion he was traveling along the sea-coast with some Maoris, when they fell in with a store of honey accumulated by some wild bees. Mr. de Thierry and one of the natives ate heartily of the honey as they found it. Soon after Mr. de Thierry was affected with giddiness, and fell down, feeling very ill. The native who had eaten with him was similarly affected. The Maoris promptly adopted remedial measures, such as they had probably tried before in similar cases. They kindled a fire, piled some seaweed upon it, and held Mr. de Thierry amongst the fumes until he became so sick that he vomited freely. By and by he got better, and the native, under similar treatment, also recovered. Mr. de Thierry says that the poisoning arises from the bees having access to the karo (*Pittosporum crassifolium*), a tree or shrub which grows all around the coast of New Zealand. At a certain season a kind of gum exudes from the karo, which the bees use for the wax of the combs. The poison is in the wax, not in the honey. This matter is of importance, for bee-keeping is now general, and the karo is being generally planted, as it makes a pretty and useful hedge. It can stand any amount of stormy weather, and also the spray of the sea.

In the *Australasian Bee Journal* for September, just received, we find the following comments on this subject, which will be of interest to our readers. We shall give further particulars as soon as the number for October comes to hand:

We have received from the Rev. Father Madan a full report of all the circumstances connected with the deaths of the two natives who were reported to have died from the effects of eating poisoned honey, and also samples of the honey taken from the same bee-nest from which the natives procured the honey they ate. The latter, immediately on receipt, we handed over to Mr. Pond to analyze, but we have not received his report. No doubt we shall have it in time for next month's issue, when our readers shall be placed in possession of all the facts of the case. We may state that the Rev. Father Madan has been at a deal of trouble in gathering all the facts connected with the accidents to the natives, and procuring the samples of honey, and deserves the thanks of all New Zealand bee-keepers for his labor connected therewith.

Paris Green and the Bees.—In the number of *Insect Life* for September, just at hand, we notice the following very strange article:

The prevailing opinion seems to favor the theory, that if arsenical mixtures are sprayed or dusted upon fruit trees while the latter are in bloom, the bees which frequent them will be destroyed. With this idea in view, fruit-growers have very properly been cautioned not to use these mixtures during the blooming season, and in fact this has been urged as an argument against the use of these substances as insecticides.

The writer, while in Louisiana, was told by planters that dusting Paris green upon the cotton-plants, killed the bees which frequented the blossoms thereon for the purpose of securing the nectar which was contained in them.

There appears, however, to be some good negative evidence bearing upon the problem, which it will be well to consider before forming a decided opinion in this really important matter.

Mr. Edwin Yenowine, a fruit grower near New Albany, Ind., is a very strong advocate of the use of arsenical mixtures, as against both codling moth and plum curculio, and is also, to a limited extent, engaged in apiculture.

Some time ago, while spending a day with Mr. Yenowine, he reminded me that several years ago, he had written me as to the probable effects on bees of the use, during the blooming season, of these arsenical mixtures, and had received a very cautionary reply. It appears that instead of following my advice he sprayed all sorts of fruits freely, both in and out of the blooming season, and instead of destroying his bees, they have increased from 8 to 17 strong, healthy colonies, and have furnished honey of which he and his family have partaken freely. This conversation with Mr. Yenowine took place on June 23, so that the increase shown was practically that of an unfavorable season.—F. M. WEBSTER.

Well! Well!! We are astonished! When bees get fat, strong and healthy on Paris green! Who would have thought it? *Insect Life* is published in Washington. We wonder if Prof. Wiley has not something to do with it. What does Prof. Cook say about it?

Dr. J. J. Owens, of Waterloo, Iowa, gave us a call a few days ago, as he was in Chicago on business. We were pleased to see that he contributed an article for the Waterloo *Courier*, refuting an article which that paper copied from *Harper's Bazar*, asserting that "syrup and paraffine" was taking the place of "wax and honey," in which he says:

Now, as a producer of gilt-edge comb honey, I hereby refute and deny the above in toto, and brand it as a base falsehood and gross slander upon the honey industry of the country. In other words, it is a plain, unvarnished lie, pure and simple. I also protest against the publishing of the same by the local press as facts, as it is doing a hard-working class of men who are considered to be as honest as the general run of mankind—a great injustice and injury. It also has a tendency to prejudice the general public who are not cognizant of the true facts relating thereto, against the honey-producer. I will further state in vindication thereof, that Mr. A. I. Root, of Medina, O., has a standing offer of $1,000 open to the world, to any one who will tell or show him where artificial comb honey is manufactured. Up to the present time no one has come forward to claim the reward.

I assure you, Mr. Editor, and your many readers, in all sincerity and candor, as a fact (and facts are stubborn things), which must and will be admitted by every candid mind, that there is no such thing as artificial comb honey, never has been any made, and I feel safe in saying there never will be.

Poultry and Pets.—The *American Poultry Journal* is one of the best periodicals published in the poultry interest. It is a large quarto monthly, and is illustrated. We club it with the BEE JOURNAL, and send both periodicals for $1.50 a year.

No Sophistry.—"Echoes," a nice monthly published by Will M. and L. S. Young of Nevada, O., gives the following rebuke to papers which have published this contemptible slander of the honey-bees:

The expression, "busy as a bee" is sophistry. That honey-making humbug lives in luxurious idleness nearly two thirds of the year.—*Ex.*

The writer of the above is talking "sophistry." It is not the bees' fault if they are idle part of the year. The flowers furnish nectar about six months of the twelve, over a large territory, and during that time the "honey-making humbug" is out early and late; and during the height of the honey season its life is of but a few weeks' duration, owing to the excessive work done at that time to gather in the extra flow of sweets so lavishly stored by myriads of flowers. We would like to see anything on earth that will equal the bee in its almost ceaseless labor, as long as it finds it to do. There is no "sophistry" about the expression "busy as a bee;" give them twelve months' flow of nectar, and they will put in a full year of labor.

The Southern Exposition will be open from Nov. 5 to 15, 1889, at Montgomery, Ala. It offers $20,000 in cash premiums. For the Apiary Exhibit, Department A, Group 4, the following are the premiums:

Best general exhibit of apiarian implements and products	$20 00
Best 25 pounds extracted honey, to be shown in glass	5 00
Best 25 pounds comb honey, to be shown in sections	5 00
Best colony Italian bees	5 00
Best ten pounds comb foundation	5 00
Best bee-hive for practical use	3 00
Best and largest, most interesting and instructive exhibition in this department by any individual or bee-association	25 00

All articles entered for premiums must belong to the exhibitor, and all honey entered for premiums must be from the exhibitor's apiary. The exhibitor receiving the largest amount of cash premiums is to receive a diploma.

Mr. W. H. Black, of Montgomery, Ala., intends to make a good exhibit, and will get up a club for the BEE JOURNAL.

Capital Bee-keepers' Convention.—Mr. C. E. Yocom, of Sherman, Ills., on Sept. 30, 1889, gives the following account of the organization of a new bee-keepers' association in Illinois:

A number of bee-keepers of Sangamon and adjoining counties met in the Supervisors' Room of the Court House in Springfield, Ills., on Wednesday, Sept. 25, 1889, and organized the "Capital Bee-Keepers' Association." Although the attendance was not large, an enthusiasm was evinced, not often seen in such assemblies. The entire forenoon was spent in organizing. In the afternoon, the subjects of "Fall Bloom," "Wintering," "Prices of Honey," etc., were interestingly discussed. The association will meet semi-annually. Any person interested in bee-culture may become a member of the association, and receive a printed copy of the Constitution and By Laws, by sending his or her name and address, with 50 cents, to the Secretary.

The following officers were elected: President, P. J. England, of Fancy Prairie, Ills.; Vice-Presidents, Alfred Lewis, of Taylorville, and D. D. Cooper, of Sherman; Secretary, C. E. Yocom, of Sherman; and Treasurer, Geo. F. Robbins, of Mechanicsburg. "From the acorn springs the oak."

C. E. YOCOM, *Sec.*

AN EMBLEM-FLOWER.

BY S. BEAUMONT KENNEDY.

'Tis meet a nation's symbol be
One of God's fragrant flowers;
They catch the sunlight of His smile,
And drink His crystal showers.
They bloom in lowly glade and glen,
And on the mountain heights,
And in their prismed petals hold
The rainbow's radiant lights.

The lily tells of sunny France
Corn-flower of "Fatherland;"
The thistle and the heather-bells
For Scotland's glory stand;
While England claims the royal rose,
And wears it on her shield,
And shamrocks, green as emerald,
Fair Erin's meadows yield.

Then choose we from the waste of bloom
That makes our landscape gay
A blossom bright to name us in
The nation's great bouquet.
And seek it not mid close-cut rows
Of fragrant hot-house flowers,
But be its tender tintings known
In mead and rustic bowers.

A flower there is that blooms for all,
For rich man and for poor,
Upon the Western prairie wastes,
And on the Northern moor.
Like Gheber true it greets the sun
Where all the East is red,
And o'er the Southern cotton-fields
It shakes its golden head.

Then be our symbol rich and rare,
This flower so blessed of Heaven,
And let our sweetest songs and thoughts
Henceforth to it be given,
The Golden-rod! the Golden-rod,
Columbia's regal crest,
It lies like sunshine in the land,
And seems with sunshine blessed!

The fairest land on earth is ours,
Christ's blessing o'er it falls,
And ne'er a tyrant's boasting wakes
An echo in our halls.
We brook no despot's iron heel,
No laws save those of God;
Then over us let Freedom wave
Her wand of Golden-rod!

—*Frank Leslie's Monthly.*

Agricultural Colleges.—California looks with emulation upon the State Agricultural College of Michigan. It wants a similar institution in that State, and well it might, for it is a great advantage to farmers' sons in every department of agriculture, including the pursuit of bee-keeping. The *Rural Californian* remarks as follows about the matter:

The demand for reliable, intelligent, honest help in the apiary is increasing every year in Southern California, and under present surroundings is likely to increase. While there seems to be no effort in any direction to supply the demand, the State University at Berkley, has the opportunity to give us a helping hand in this matter, and bee-keepers should urge, yes, insist that the University do its duty in this regard. The State of California can produce $15,000,000 worth of honey per annum, and furnish an article superior to any in the world. The honey and wax product of California is now over $1,000,000 worth; and the University of California, by proper effort, could double this annually until the product has reached its limit. I know of no agricultural pursuit that will allow so great a margin for improvement as may be found in apiculture, in the State of California.

The State of Michigan finds it profitable to have a Professor who gives much of his time to experiment and instruction in this branch of education, and the State reaps annually rich rewards for the money expended upon the apicultural department of the Michigan University. That State has no such territory, no such nectar-yielding flowers, shrubs and trees, as are found in California. Here we count on a perpetual bloom, and in Southern California the bee is on the wing 350 days in the year, and would be every day in the year, but for the rain.

In Michigan the bees are for the most part shut up in cellars for four or five months to prevent their freezing to death, and often cannot work in the spring or summer for a long time on account of cold, cloudy weather. The yield of honey in Michigan does not exceed 70 pounds per hive under the most intelligent management, while in California it averages 250 pounds per hive.

California could well afford a professorship at her University, where the student could be taught everything pertaining to the science of bee-keeping, and thus add to the stream of human knowledge something that would add millions of money to the commerce of the world; give employment to thousands of her citizens, and not detract from the soil one particle of its vitality. Every particle of nectar gathered and sold in the markets of the State is so much gain to the commonwealth, that would be wasted on the desert air, except for the industry of the bee and the bee-keeper.

The American Newspaper Annual for 1889, by N. W. Ayer & Son, Philadelphia, Pa., (price $5) contains a carefully prepared list of all newspapers and periodicals in the United States and Canada, arranged by States and towns in alphabetical order. Under this head is given the name of the paper, the issue, general characteristics, year of establishment, size, subscription price and circulation, also the names of editors and publishers, and the street address (when known) in all cities of about 50,000 population.

Among its exhaustive and interesting tables are those showing the cities, towns, and villages of the United States having a population of 5,000 and upward, arranged in alphabetical order; how many counties there are in each State; in how many of these newspapers are published, etc.

An Appendix to "Scientific Queen-Rearing," by G. M. Doolittle, is given in the *Second Edition*, which details his further experiments in his methods of Queen-Rearing.

This "Appendix" will be mailed free of cost to all who have the first edition, upon application at this office. It is now ready for delivery.

The "Second Edition" of this interesting book will be mailed to any address, postpaid, for $1.00.

New Posters for the AMERICAN BEE JOURNAL, printed in two colors, have just been printed, and will be sent free to all who can use them. They are very handsome, and will "set off" an exhibit at Fairs. It will tell Bee-Keepers how to subscribe, for "Subscriptions Received Here" is quite prominent at the bottom.

We will also send sample copies of the BEE JOURNAL, for use at Fairs, if notified a week or ten days in advance where to send them.

A Tempting Offer for those who are willing to help get new names for our JOURNALS:

Some are desirous of collecting names at once, and we would like them to do so, and thus begin early to get new readers for 1890.

We propose to all who subscribe now for 1890, to *give* them all the rest of the numbers of this year *free*—so the sooner they subscribe, the more they will get for their money.

Now, in order to pay our friends to work for our JOURNALS, we have gotten up special editions of Mr. Doolittle's "Scientific Queen-Rearing," (with Appendix), and Dr. Miller's "Year Among the Bees," bound with nice paper covers, and will *present* a copy of either book to any one who will send us two **new** subscribers for either of our JOURNALS (the BEE JOURNAL, weekly, or the HOME JOURNAL, monthly).

These editions are not for sale, but are gotten up specially for premiums for getting new subscribers. They are nicely printed, and will be sent *free* of postage, as pay for work to be done for our JOURNALS Clubs need not be located at one post-office, and may contain one "Bee Journal" and one "Home Journal" to the same or different addresses; or both may be for either JOURNAL, as may be desired. Dickens or Waverley may be obtained for each subscriber in this club as offered on the last page of this JOURNAL.

The HOME JOURNAL is needed in every family, and it will be no trouble to get subscribers for it anywhere and among all classes of persons. For larger clubs of it, consult any issue, and our list of premiums.

Call upon your neighboring bee-keepers who are not subscribers to this JOURNAL, and secure the premium mentioned above. We strongly urge you to commence collecting names *at once*.

In sending in new subscriptions, remember to give the full address, with the county, and at the time of sending, state that the names enclosed are for premiums, if the premiums are not then selected.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Convention Notices.

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Romney, Ont., Canada.

☞ The Union Bee-Keepers' Society will meet in Mount Sterling, Brown Co., Ills., on Oct. 23 and 24, 1889. The prospects are very flattering for a grand time, and all who are interested in bees or honey are cordially invited to attend.

J. M. HAMBAUGH, *Sec.*

The Mistaken Bee.

A vagrant bee came buzzing round,
And Chloe, frightened at the sound,
Cried, "Mary, help! Go, Lizzie, fetch
A broom and kill the little wretch.

Too late! despite the bustling maids,
The wanton imp at once invades
Poor Chloe's lips—the saucy thing!
And fixes there its ugly sting.

The culprit caught, the maids prepare
To kill the monster then and there;
When trembling for its life, the bee
Makes this extenuating plea:

"Forgive! O beauteous queen, forgive
My sad mistake; for, as I live,
Your mouth (I'm sorry, goodness knows),
I surely took it for a rose!"

"Poor insect!" Chloe sighed; "I vow
'Twere very hard to kill him now—
No harm the little fellow meant;
And, then, he seems so penitent;
Besides, the pain was very small—
I scarcely feel it now at all!"

—*John G. Saxe.*

QUERIES and REPLIES.

Using Old Sections and Combs in the Fall.

Written for the American Bee Journal

Query 659.—I have a lot of old sections, mostly filled with comb from previous years. They are dark, somewhat propolized, and the sections are considerably soiled. I did not like to use them for our nice white honey. Would it not be a good idea to use these for the fall crop, as it usually sells cheap, anyway?—Bee-Keeper.

Yes.—C. C. MILLER.

Yes.—R. L. TAYLOR.

Yes.—MRS. L. HARRISON.

I think that it would.—A. J. COOK.

It would be poor economy.—P. L. VIALLON.

Yes, they are good for fall honey.—G. M. DOOLITTLE.

No. Fall honey sells quite well when put up clean.—DADANT & SON.

Yes, if you wish; but you would have to sell it at a discount.—J. M. HAMBAUGH.

Cut the combs out, melt them into wax, and use the sections for kindling-wood.—EUGENE SECOR.

No; unless you are willing to use it at home. They might be filled with fall honey to be extracted.—M. MAHIN.

Yes, if you can sell the honey. My way would be to use the comb for wax, and clean the sections up nicely for a new crop.—J. E. POND.

Such sections are not fit to store *any kind* of honey in. Melt up the old comb, and use the sections for kindling fires.—C. H. DIBBERN.

Your sections would be better fitted to the fall crop than the early white crop, but whether it would be best to use them for that or not, depends upon how bad they are. What one calls soiled and dirty, another would not describe by that name. I rather think that it would be better to burn up the sections and melt up the combs. I have done that once or twice, and we have a dark fall crop here, too.—JAMES HEDDON.

You can use them as you suggest; but I would first clean off all the propolis; and, with a sharp knife, shave off the outer edge of the cells.—J. P. H. BROWN.

Such combs, if used at any time, should be shaved down until the cells are not more than a half of an inch deep; otherwise the honey will be inferior. It does not pay me to use any but nice, clean combs, for comb honey.—G. W. DEMAREE.

It would be best to cut out all the comb, melt it into wax, and clean up the sections. Put your honey in neat and clean sections, and it will not sell so cheap—H. D. CUTTING.

Melt the combs in all old, dirty, soiled sections, and kindle the fire with the wood. This is the best possible use that I know. Do not regret the losses of the past, but press on to the future and take care of it.—J. M. SHUCK.

Yes; use the old partly-filled sections for the fall crop; then sell it for two cents less per pound than the white clover honey sells for, and see how many of your customers will prefer the dark honey.—MAHALA B. CHADDOCK.

New honey, whether of the early or late crop, does not sell to advantage in old combs. The bee-keeper is sure to lose credit by using such combs. Sections containing nice, white comb can be wrapped in stout paper, and be kept so clean that they can be used another season to advantage. But dark, dusty combs should be melted up.—G. L. TINKER.

The usual answer to such a query is, "Throw them all out-doors, and procure brand-new ones; as your reputation is of far more value than that of the sections." However, I believe the "danger" in this direction is very highly magnified! In fact, too much so! There are many ways in which these sections can be used (without losing your reputation), thereby utilizing sections, and saving the cost of new ones. Your near neighbors, with a little explanation, would just as soon have these as any others. Of course, they should not be sent to a city market. You can also, if anything like myself, dispose of a great many on the home table.—WILL M. BARNUM.

No. Such sections are unfit for comb honey, which is a fancy article, and should be put up in first-class condition—even if it is fall honey. To melt up the combs and use the sections for kindling-wood would be economy. To scrape the sections and fuss with them would be worth more than new ones would cost, if your time is worth anything.—THE EDITOR.

How Long will Bees Live in the Mails?

Written for the American Bee Journal

Query 660.—For how long a time is it supposed that a queen and accompanying bees can bear the confinement of shipping by mail?—Michigan.

Ten days or two weeks. They are now sent across the ocean in the mails.—MAHALA B. CHADDOCK.

For about 15 to 20 days, depending much upon how fine the sugar used is powdered.—G. L. TINKER.

They have been shipped from Europe by mail. I do not know how much more they would stand.—C. C. MILLER.

Probably four weeks, if favorable conditions are present; may be longer. I do not know.—EUGENE SECOR.

I do not know, but I have known them to stand 9 or 10 days in August weather. They should be well ventilated, and have ample room.—J. E. POND.

For an indefinite time. Probably as long as the food and warm weather would last.—C. H. DIBBERN.

That depends wholly upon the packing and the quality and quantity of food. I do not know the outside limit.—M. MAHIN.

Twenty days, without danger of loss; 40 days or even longer, in cases specially prepared.—J. M. SHUCK.

Probably until they starve to death. It is difficult to answer such a question as this, as a correct answer depends upon so many things. In common cases, perhaps three weeks.—WILL M. BARNUM.

I am not certain, for a great deal depends upon the weather, provisions, treatment, etc. I will venture an answer—from 2 to 3 weeks, should they be properly provisioned, and the weather remains propitious.—J. M. HAMBAUGH.

It depends upon many circumstances. I have had them to die in transit in 2 or 3 days, and again perfectly alive after 20 days. I have received queens from Mr. Benton, mailed in Germany, which were 19 to 21 days on the way, and all came lively.—P. L. VIALLON.

When put up right, they can stand confinement 20 days, as I know by experience, and how much longer I do not pretend to say. A few days ago I liberated a queen and some bees that had been confined in a cage provi-

sioned with pure sugar-candy for 20 days; the queen was in good health, but some of the workers were distressed with diarrhea, and discharged as black and filthy-looking matter as I ever saw in the winter season; but perhaps I should beg the pardon of our pollen-theorists, eh?—G. W. DEMAREE.

I do not know, as so much depends upon surrounding conditions. Sometimes it is but a few days, and at other times a month or more, seemingly.—JAMES HEDDON.

That depends somewhat upon the size of the queen-cage, the number of worker-bees with the queen, the care with which they are put up, and the weather. Queen-bees have crossed the ocean, were a month on the way, and arrived safely.—MRS. L. HARRISON.

I sent one to Texas, which then went to Georgia, then to Massachusetts, and then to Kentucky—*en route* about three or four weeks, with the queen and most of the workers all right at the end of the journey. I believe that with good food, they could go much further and a longer distance.—A. J. COOK.

That depends. In very hot, dry weather, they will not bear confinement as long as they will when the temperature is cooler and more pleasant. I have mailed queens successfully when they have been confined in the cage for 30 days.—J. P. H. BROWN.

Several years ago I sent some queens to Scotland, which arrived in perfect order, after a confinement of 16 days. I also sent some to New Zealand, which were *en route* 35 days; all were dead when they arrived but the queen, and she died soon afterward. I prefer not to send queens by mail where it is necessary for them to be confined more than 10 to 14 days.—G. M. DOOLITTLE.

They will stand it from 10 to 15 days, but though they have stood it for a much longer time, it is best not to presume too much upon what might be the result of a longer confinement. We have sent them to Australia, and they were in good condition, but they were specially prepared with extra food, more room than usual, and plenty of ventilation. Some we have received dead, though only confined for 3 or 4 days.—THE EDITOR.

Prang's National Flower is the title of a beautiful pamphlet which contains two colored plates of the two most popular candidates for selection as the National Flower of America. It also has two poems, and a postal card addressed to Messrs. L. Prang & Co., Boston, Mass., with a vote to be filled up for the selection of a National flower. The pamphlet costs 25 cents, and can be obtained at this office.

CORRESPONDENCE.

FACTS.

Further Discussion of the Subject of Digested Nectar.

Written for the American Bee Journal
BY PROF. A. J. COOK.

I am surprised and pained to read the editorial on page 611. I quite agree with the editor, that "Ridicule is not argument—neither are arrogant assertions and contemptuous epithets conclusive evidence." If I have ever, anywhere, used ridicule, arrogance, tyranny, or epithets, I truly beg pardon. I despise all such, and have ever tried to avoid them as I would poison. I did try to express forcibly my displeasure and opposition to the expression of opinions on subjects that writers had not investgated; especially where they taught in opposition to well-settled facts.

Some years ago the great Agassiz talked of bees, and uttered absurdities that made bee-keepers laugh. He merited rebuke, and received it. Prof. Wiley did the same thing, and the editor of the AERICAN BEE JOURNAL fairly "roasted" him. I always felt that the editor was pardonable. When a man writes of what he has not investigated, and so knows not the truth, and essays to teach others, he deserves severe reproof. The editor certainly agrees with me in this, or, he would not have written as he has in the Wiley matter.

Regarding Dr. McKinney's reply: I make no complaint of style; I think he is courteous and fair to me; but not to himself or truth.

I am very glad that the Doctor says that honey and neetar are different. So far, good. Bnt when the Doctor teaches that heat will change cane-sugar to glucose, he is far out of the way. Why! it is heat and evaporation that prepares our cane-sugar from beets, cane, and maple sap. Unless we add acid, such evaporation never changes the sugar. If concentration by heat changed cane-sugar to glucose, then our sugar factories and maple bushes would be glucose factories. This is entirely an error.

I believe that no scientific authority teaches other than that nectar is cane-sugar, and honey, for the most part, reducible sugar. Now there are two ways that the cane-sugar can be changed to honey—either by boiling with an acid, or by animal ferment. Bees certainly work this change. They cannot do it in the first way, therefore they must do it in the second.

Again, bees have four large glands which empty their product right at the base of the tongue. Here, then, is a digestive liquid in rich abundance, that is poured out just where the honey enters. I have not the least doubt but that this is the ferment that digests the nectar. We positively know that the nectar is digested, as is easily tested. Here is the juice, emptying just where it would be needed.

I believe that these facts are demonstrated: Honey is partially, or completely, digested nectar. The bees work this digestion. I have no doubt but that the secretion from the lower head, and thoracic, glands, furnish the ferment that effects this digestion. A diluted solution of any sugar is likely, if kept warm, to ferment or sour. Thus the sap sours in the spring, and the presence of the acid changes the cane-sugar when we boil it, to glucose, and so ruins our syrup or sugar. In the same way diluted honey will sour. It is not that the honey is not digested—"the bees dyspeptic"—but the diluted honey not ripened—is likely, under the right circumstances, to sour. Thus we wish to have thick, heavy honey, so that it may not ferment.

How quickly maple sap sours. It takes only a few hours. This is not true with the syrup. The syrup may be kept for months, and not ferment. This is just the case with honey. Thin honey ferments readily; ripe honey will keep for years.

Agricultural College, Mich.

[To give *pain* to a friend, causes us *sorrow*. Our arguments were only *intended* to show that editors should not exclude courteous discussion, and thereby prevent all advancement—and, also, to prove that putting such articles into the waste-basket, would not disprove the arguments sought to be advanced. We stated that *editors* should not play the "tyrant"—not professors!

We well knew that Prof. Cook went further than he intended, in his article in *Gleanings*, and that is why we depreeated the fact that the Professor should have *seemingly* invoked the aid of ridicule, etc. We surmised rightly that, upon second thought, he would gladly modify the language in some particulars.

The "Wiley matter" bears no comparison to the present discussion. That was a wilful misrepresentation, made in order to cause a *sensation*, and one that has injured the pursuit!

The discussion of the "digested nectar" theory, is a harmless dispute

—doing no injury, and is made only to get at the truth—for which both sides are anxious.

We cannot help thinking that Prof. Cook was particularly unfortunate in the use of the word "digested."—By its use, he certainly cannot mean "food turned into chyme, ready to be converted into blood," as Webster defines that word, and as it is generally understood, in its common use!

Frequently and presistently is it stated that bees do *not* "make honey"—that they simply deposit in the combs what they gather from the flowers! That it undergoes a slight chemical change is true—but it is *not* "digested" in the common acceptation of that word!

Will Prof. Cook, or some one else, please suggest some more appropriate word descriptive of immaculately-pure virgin honey? We do not want to call it *digested*, under any circumstances, if it can be avoided!—ED.]

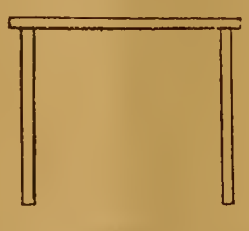
BEES IN WINTER.

Safe Method of Wintering—How to Prepare the Bees.

Written for the American Bee Journal

BY ALLEN LATHAM.

Winter is approaching; even as I write, the wind whistles, and there is a chill in the air suggestive of coming frosts. Now is the time that the average bee-keeper is looking anxiously into the condition of his bees, and he wonders whether they will pass through the winter in safety. Beginners are debating how they shall winter their bees. It is my purpose, in this article,



to give some idea of how the bees can be safely and surely wintered.

I began in 1884 with one swarm, which I captured in the woods. That colony died from the effects of winter. I procured bees the following spring, and the next fall I had 5 colonies, which I safely wintered. Since then I have not lost a colony from the effects of winter. Feeling that I have found a safe way of wintering bees (I do not as yet say that I have solved the "wintering problem"), I desire to present it to the beginners, who, I hope, will accept it with pleasure

The sketches which accompany this article show very clearly how I manage. The outer case, which is about 4 inches larger all around than the hive, and 8 inches higher, is made of clapboards and scantlings an inch square. The top, or cover, is of boards, and is covered with tarred paper, making it perfectly water-proof. The inside

Longitudinal Section, Parallel to Side.

cushions are wide frames covered with burlap and stuffed with fine planer-shavings. The cushions should be of a thickness to make the inner space where the frames are, about 6 inches wide.

A colony is easily packed away. After the frames and cushions are in place (I suppose it is needless to add that the four frames should be half full of sealed honey, and some pollen, if you do not believe in the pollen theory), the case is put over the hive, and then planer-shavings are packed under and at the sides to the top of the hive. Now remove the cover, place two sticks across the frames for a bee-passage, and over the whole lay a piece of carpet or burlap; to fill up the rest of the case, put in a large sack of shavings. The sack should be closed so that the bees can be easily examined without spilling shavings.

Put the outside cover on, and make the entrance about 2 inches by $\frac{3}{8}$ of an inch, and the colony is ready to stand a severe winter, or a mild one. The bees should be packed when all breeding has ceased, and they are ready to quiet down for winter. Here it is about Nov. 1.

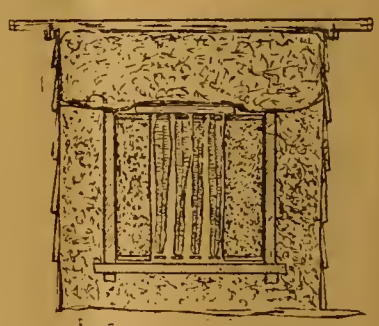
Little care is needed in winter. Snow should be shoveled away from the hives only when there comes a thaw. I usually clear the entrances whenever I happen to be in the apiary. Last winter I was at college, and the bees were let entirely alone, yet they were all right in the spring—all the 27 colonies.

I will here say nothing of spring care of bees, as I expect to write later concerning that. All that remains to be said here are a few words in support of this method.

First, it is a safe way of wintering bees. The bees are in a small space, surrounded on three sides by dry shavings, which carry off all moisture, and retain the heat. They consume very little food—not more than one-fifth as much as an unprotected colony. Thus they come through the winter in a healthy and strong condition. It matters little whether there be a quart or four quarts of bees in the colony, they will winter the same, and breed up nearly as fast in the spring.

I once wintered a quart of bees with no queen. I gave them two frames only. They came through alive, drones and all. In the spring I gave them a queen, and to-day there is a strong colony in that hive. During that winter, there were 21 days in succession when the mercury stood below zero.

Second, it is a cheap method; the whole apparatus for one colony need cost but 50 cents, and will last for years. The sides can be simply tacked



Longitudinal Section, Parallel to End.

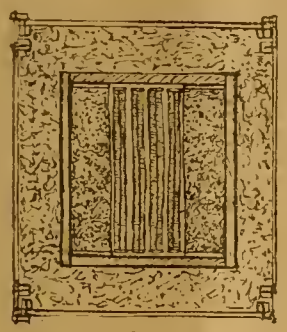
together, and so be easily pulled apart, to be packed away for "next winter."

Third, there is no more work about it than about cellar-wintering. One man can pack 15 hives a day, and unpack 25. The shavings can be kept in a bin, to be used again.

Last, but not least, it is the best thing possible when spring comes. Through it that delicious honey—apple-blossom honey—can be obtained. Last season nearly all of my surplus honey was obtained from apple-blossoms. How this can be done will be told in a future article.

In concluding, I ask the old bee-keepers to try one colony the coming

winter, and see how it works. I am aware that my method is pretty much the same as that used by many other



Horizontal Section.

bee-keepers, but just how it should be done is not clear to the majority.

Cambridge, Mass.

ROBBING.

How to Remove the Surplus Honey.

Written for the Prairie Farmer

BY MRS. L. HARRISON.

"Mamma! Mamma! The bees are on top of the portico, and under it, and trying to go into the parlor, through the shutters; and just look, they are all over the honey-house. Oh, my! oh, my! these is one in my hair! come quick and get it out, mamma. How it buzzes!"

The bees were stinging the chickens and they pitched into me, when I went out. There was a reign of terror for awhile, all produced by robbers attacking a queenless colony. The bees that could not find where the honey was obtained, were trying to enter other hives, and were repulsed with vengeance, which caused all this stinging commotion.

We obtained some cases for holding sections, that were too short, and left an opening at the end of the hives, during the honey-flow. This was no objection, rather to the contrary, as it assisted in ventilation; but now, robbers were trying to enter through these openings, and it appeared as though the whole apiary would soon be demoralized.

I uncovered the queenless colony and let the robbers take possession; and the other bees soon found where the honey came from. I then fastened up the openings made by the short cases, by stuffing in rags; and, to drive off the bees, wet them with kerosene. They dislike the odor of this so much that they soon left on the double-quick.

Removing Surplus.

Surplus honey can now be removed whenever convenient.

In England, in order to drive the bees from the sections, bee-keepers spread on a cloth wet with carbolic acid, which causes the bees to retreat below in the brood-combs; but in this country, smoke is generally used. I go out into the apiary in the early morning, before the bees are flying, and carefully drive the bees below with a bellows smoker, pry up the case, remove it, cover up the hive securely, and put the case into the honey-house.

When the bees get stirred up in that part of the apiary, I go to another part, and do not persist in working a long time each day, as I live in the city and must be careful that persons and horses are not stung. Sometimes in the evening I pry up cases so that I can easily remove them in the morning.

Those that I remove one morning, I scrape off the propolis and store away, and am thus prepared for another lot the succeeding day. Working slowly in this way the bees do not get demoralized, and I can work with them comfortably. If they get very excited, I stop removing surplus for a few days.

As for myself, I do not care how cross they get when I am working with them, as I am protected against their javelins; but at the same time, I must consider the safety of other persons and animals. There is a great difference in the handling of bees, to keep them on their good behavior, as the following will show, taken from the *Western Apiarian*:

"I hired a California man one season to handle my bees; he donned a white linen coat, buttoned up to the chin, put on a bee-hat, gloves with gauntlets up to the elbow, and tied with cords at the elbow, and cords around his pants above his shoes, so that it was impossible for a bee to get at him; then he would pitch right into them, with very little smoke, and the consequence was, in a few days we could scarcely stay on the place for the bees. So I discharged him, and took them in hand myself, and in two days I had them as tame as ever."

When bees get greatly irritated they do not always quiet down in two days, and seem to have good memories. This man had probably worked in California canyons, away from any human habitations, and as they could not sting him, did not care how cross he made them, and they would be in fine condition to drive off bears, and other marauders. Some persons are better adapted by nature to gentle, quiet handling of bees than others, but all who engage in this pursuit should try to improve in this respect.

HONEY.

Digested Nectar or Honey, as Claimed by Prof. Cook.

Written for the American Bee Journal

BY L. A. ASPINWALL.

I have been deeply interested in the above subject; also the gentleman in question. I say gentleman, because I know him, and have met him upon several occasions. I have been highly entertained by him at the Michigan Agricultural College. He is not only a gentleman, but a thorough scholar, not in one particular line or department, but his knowledge is diversified and general.

Now that so much controversy is growing out of the subject of honey being digested nectar, let me beg of our fraternity to discuss the subject with all enthusiasm, but not forget that men who are constantly overworked, often in a burst of enthusiasm forget themselves, and perhaps use an expression which, although harsh, may not have been intended as such. I am quite sure the word "digested" can be distorted and made to mean other than what the Professor intended. We know that to digest is to pass into the chyle stomach, and undergo such a chemical change or assimilation which renders it ready to be appropriated to the system. But when used in a sense that the Professor intended it, we understand it quite differently. When the Psalmist said, "Rivers of water flow down mine eyes because of the sins of my people," he did not mean more than tears.

As yet, I do not quite accept the Professor's theory, although I am much nearer to it than I was a year ago. I have used the litmus paper for certain tests, although not for honey, therefore I cannot speak with much assurance yet. May it not be possible that thoroughly-evaporated nectar leaves an inherent or natural acid so insoluble as not to act upon the paper? Let us hear from our friends on this point.

Perhaps Prof. Cook was a little hasty in requesting Dr. McKinney to ask the brother bee-keepers' pardon, but I can see his burst of energy and enthusiasm more than any feeling that such language would seem to indicate.

Wooden Cells—Non-Swarming.

I want to correct the Professor in his article on page 616, which I know occurred through his multitude of business. He speaks of myself and a neighbor bee-keeper having used it for "two or three years." It should read, "two seasons." I also wish to speak of tearing the comb slightly by

the bees. This would not occur had the bees been introduced during the honey-flow. It was late before completing a successful machine to bore the combs, hence the occurrence. Having discovered it myself, I remedied it at once in substituting a wood which does not leave a furred cell after being bored. The cells being bored endwise to the grain, unless the bit is kept very sharp, a little fiber will be left. The bees naturally remove it, and polish the cells, and during a failure of the honey they continue the work of polishing too long.

I also wish to explain my theory as to non-swarming: I understand the instinct of the honey-bee to guide them in this matter as much as in comb-building; that drones are reared during the approach of the swarming season to impregnate the young queens. They are invariably produced before any preparations are made in the line of queen-cells. I believe that the instinct of the bee is unerring; that they will not attempt to rear a queen and leave her without drones with which to mate. Each colony certainly acts upon the principle of isolation, as in the forest; otherwise, they would not rear drones when other colonies contain them.

WINTERING BEES.

Early Preparation of Bees for Winter—Carniolans, etc.

Written for the American Bee Journal

BY L. W. LIGHTY.

If some one were to put you to bed, and cover you, and command you to lie still, ten to one you would be uncomfortable, with one foot out in the cold, and some corner of the cover not in place, letting in the cold. Give you a little time, and you will make it snug.

So with the bees; put off the winter packing until late, when they have clustered, then you will fix it to your notion, and ten to one the bees are uncomfortable. Get them in good condition, and pack early for winter, and they will be able to "putty up" the little draught-holes that annoy them, and build bridges, and fix things in general to suit their notions, which you will generally find the best.

If bees are to be wintered out-of-doors, they will always winter better if packed and prepared early in the fall, at least before they begin to cluster. At least such has always been my experience.

I have found nice, clean wheat-chaff to be the best material for packing. Top ventilation through a six-inch chaff-cushion is desirable; and *plenty* of good food is very necessary to successful out-door wintering. Let them have a little more than they need, and you generally will not lose anything in the long run.

Carniolan Bees.

I tried the Carniolans this season, and I cannot praise them very much so far. They are very prolific, are not as easily handled as Italians, and will not stick to the comb. They can be handled with very little smoke, if handled *very* quietly; but I do not have any time to "fool away" generally, and want to handle bees hurriedly, as a rule. I think that they do no better in honey-gathering, and on comb-building I can hardly say, as yet.

Report for the Season.

The whole of the white clover season was wet—very wet—and bees got very little honey. Honey seemed to be plentiful, but it rained every day, and bees could not get out. We had a good flow of fall honey, but it is as fall honey generally is—dark, and not very salable. Bees are likely to go into winter quarters in good condition, but will have some honey-dew in the brood-chambers.

The asters are just coming into bloom now, and may give us some honey yet, as it often does. That is usually fine honey.

Mulberry, Pa., Sept. 18, 1889.

MAILING BEES.

Sending Bees by the Pound Through the Mails.

Written for the American Bee Journal

BY E. L. PRATT.

There seems to have sprung up a lively interest in the matter of "sending bees by mail," with no more competition than I expected. Mr. Doolittle is not the man to "rush in where angels fear to tread," and I am sure that I am not. The whole question will bear considerable study on both sides. Mr. E. R. Root, on hearing the news, as given in the AMERICAN BEE JOURNAL, on page 581, wrote to me the following communication:

E. L. PRATT:—In regard to sending bees by mail, we have no doubt but that it is possible to do so, but it is very dangerous to the general queen-traffic, besides it is contrary to the Postal Regulations.

A few years ago one man attempted to send one-half pound of bees through the mails, the package was broken open, the bees escaped and stung the postal-clerks, and the result was, queen-bees and their attendants were excluded from the mails, to pay for the bee keeper's carelessness. It is only through great efforts on the part of the bee-keeping fraternity, especially Prof. Cook, that queen bees and a few attendants were re-admitted to the mails, and then only on conditions that a few bees might accompany the queen. To do so, the Postal laws will have to be modified.

We beg of you not to try the experiment again, if you value the privilege of sending queens by mail. The fact that we have been having trouble with Uncle Sam a number of times in regard to sending queens by mail, shows that we cannot be too cautious.

We had better be content with what we have, and not try to tip beyond the bounds; besides, even if it were permissible and no trouble would come from this source, the postage on a pound of bees would be nearly as much as the express charges, with the average distances to which bees are sent.—E. R. ROOT.

Mr. Alley, and several others, have pitched in and given the scheme a thorough boxing. If we can keep cool long enough, I think that the matter will adjust *itself* very effectually. The time is close at hand when the bulk of the business now done by the hundreds of express companies, will be handled as mail-matter by the Government. Just think of it, reader, to be able to stick a 10-cent stamp on a 5-pound article, and have it delivered at the very door of your customer, one thousand miles, or more, away! The idea is stupendous, and its need unquestionable. The great monopolies and trusts of this country are working out a grand salvation for the people in a slow but sure manner.

The *Nationalist* for August, editorially says: "The use of the mails for transmitting express packages is increasing in popularity. Were it not for the pressure upon Congress by the express companies, which thereby succeed in maintaining the rate upon fourth-class matter, at 1-cent per ounce, and the limit at four pounds, the bulk of the express business would already have gone to the post-office."

One of the improvements which *should* be made in the Postal Service, is the reduction of the rate for express packages. There is a manufacturing concern in Boston now using the mails for the transportation of type-writers to Mexico, that is proving the cheapest and best way, since, by special treaty the international rates for fourth-class matter permits the sending of 12-pound packages.

Perhaps you know that the dealers in liquids and glassware have been preparing for this order of things, by so packing their goods that breakage it next to impossible, even in the generally rough usage of the mails. See also an article in *The Forum*, by Dr. L. W. Bacon.

Look over the field, read up, and give your best ideas to the papers. One blundering failure should not be the means of squelching all other efforts of a progressive nature. If this

world is going to stand still, I want to leave it now; but it is not going to take a stand, yet awhile. Some of us now have pretty hard work keeping abreast of the times. All hail, coming grand events in our national history.

Marlboro, Mass.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Oct. 23, 24.—Union, at Mt. Sterling, Ills. J. M. Humbaugh, Sec., Spring, Ills.

Dec. 4-6.—International at Brantford, Ont., Canada. R. F. Holtermann, Sec., Romney, Ont.

1890.

May 2.—Susquehanna Co., at Hopbottom, Pa. H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Stung by Bees, etc.—Aaron Jennings, Medusa, N. Y., on Sept. 30, 1889, writes:

As Mr. Greiner asked (page 584) for the particulars in regard to the West Milton teamster being stung so badly, I would say that it was not one swarm, but bees from quite a number of hives. Mr. Howlet, the teamster, drove his team in the yard where the bees were kept, and the teamster's boy going where the bees were, the bees went for the boy, and the boy went where his father was with the team; the bees stung the horses, and they went among the bees, knocking over six or seven hives. One horse was stung so badly that it died that night; and the other died the next day. A gentleman from the town of Milton visited me last week, and told the particulars. We have not more than one-third of a crop of honey; the hives are well-filled with honey and honey-dew to winter the bees, but I am fearful.

Golden-Rod, Extracting, etc.—J. N. Edsall, Unadilla, Nebr., on Sept. 23, 1889, writes:

I began the season with 14 colonies, increased them to 24, and have taken about 200 pounds of comb honey—rather a poor showing, some will say. Bees started well in the spring, and did nicely until June, but since then the weather has been too cool, and there was little honey in anything; the heart's-ease bloom was light, and golden-rod yielded nothing. 1. From my experience I am inclined to agree with Mr. Eugene Secor, that the golden-rod is "no good" in some localities. I have never seen a bee on it. 2. Would it pay me to buy an extractor, having only fall honey? 3. Can honey be extracted from the brood-chamber before the brood is all sealed in the combs? 4. All my hives are the Langstroth style but one, and that is a tall hive with a frame 12 inches deep; the colony in this hive always gives me the most comb honey. Why? 5. I placed an Alley drone and queen trap on a hive this season, but the swarm left me. Why? When I opened the hive I found three young queens on the combs, and half a dozen queen-cells unhatched. I got no honey from that outfit.

[1. The golden-rod, like many other plants, is much affected by atmospheric conditions, and some years seems not to yield nectar.

2. Yes; an extractor will pay you at all times. It is so handy to extract from partly-filled sections, in preparing for winter, etc.

3. If care is taken not to turn the comb-baskets too fast, the honey can be extracted from combs containing unsealed brood.

4. That state of things is quite unusual. The hives with shallow frames generally give the most comb honey.

5. We give it up. Perhaps Mr. Alley can throw some light on the matter.—ED.]

Best Season for Ten Years.—E. R. Russell, Humboldt, Kans., on Sept. 21, 1889, says:

The honey-flow here has been the best for ten years, and bees are working on golden-rod and heart's-ease.

Ventilation and Foul Brood.—R. E. Parcher, Wausau, Wis., on Sept. 9, 1889, writes:

The AMERICAN BEE JOURNAL is very interesting and instructive to me; in fact too much so; but the object of this is not to compliment, but to find fault with some things that I find in it. This is called forth by reading an article on page 569, on the "Cause and Prevention of Foul Brood." There are a few facts incorporated in that article that are liable to get the whole dose into many. The writer has made a wonderful discovery in his cause of the disease, the "steaming atmosphere" laden with *detritus* (I wonder how many of us would know it, if we should meet it on the street, or in the woods, as Geo. Peck says); but Webster can introduce us, so we know who "detritus" is. Well, it is a great relief to know that all we have to do is to put in a modern fire-brick tile hearth, slate or mahogany month fire-place to each hive, and the disease is headed off. That bees do effectually ventilate, and to a large extent control the temperature of the inside of the hive by their wing-fanning (both outside and inside of the hive), there is no doubt, and I think that at the present day it is generally admitted that the proper place in a room (and I think the same will apply to a hive) to draw the air from, is the *bottom*; then what better or cheaper way of ventilation than to let the bees attend to that themselves. There may be many "theoretical" disregards of correct methods of ventilation, but I think there are few *practical* ones.

[Our friend seems to stumble on the word *detritus*. It is applicable to "a mass of small particles worn off from solid bodies by attrition;" when the portions are larger, the word *debris* is used.—ED.]

Poorest Season for 15 Years.—Edgar Ricard, Canaan Center, N. H., on Sept. 23, 1889, says:

Bees wintered very well in this county last winter, and swarmed early in June, but have not stored any surplus since June 20. Swarms that came out after that time have no honey to winter on. This is the poorest season for honey that I remember of for 15 years.

Bees and Grapes, etc.—Thomas Hoey, Salineville, O., on Sept. 19, 1889, writes:

There are not many bees in this part of Ohio; it is in the Yellow Creek coal hills, where a great amount of the coal is mined, so it is not much of a place to keep bees, as the hills soon dry off, and not much blossoms for bees to work on. After the cold, wet spring was over, the bees did well till about the first of August, then very little was done till about a week ago, when they worked hard on honey-dew; but rain has come, and to-day it is too cold for bees to fly much.

In regard to bees destroying grapes, I would say that I raise a large amount of grapes of the best and sweetest ever eaten, and I have about 60 colonies of bees alongside of the vines; and if bees are so destructive to grapes as some folks say, I do not see how I can raise so many. I have had good, sweet grapes on trees that could not be picked, and were left to stay until the frost froze them, and the bees near

them had very little to eat, yet they never touched them. My bees are Italians, and will go almost any place that they can get anything to eat; but they never touch the grapes, unless the grapes are bursted, or something else has torn them open. The vines over the hives are full of grapes, and the bees have nothing to work on, and yet they do not touch them. A man told me that my bees destroyed his buckwheat, by sucking all the strength out of the blossoms, so that he did not get half a crop! How is that for ignorance?

Premiums at Fairs.—J. W. Bittenbender, Knoxville, Iowa, on Sept. 27, 1889, says:

I had an exhibition of about 8,000 pounds of honey, comb and extracted, and have taken eleven premiums as follows: One of $25.00; 2, $10.00; 2 $5.00; and 6 of $2.00. The $25.00 premium was the largest, and the $2.00 the smallest offered.

Preventing Increase, etc.—O. P. Miner, Taylor Centre, N. Y., on Sept. 21, 1889, writes:

I began with 16 colonies in the spring, and have 19 colonies now, and 800 pounds of comb honey, and 50 pounds of extracted honey from unfinished sections, making 53⅓ pounds per colony, spring count. My bees were never in better condition to gather the harvest than this year; but the weather was too cool and wet during most of the basswood harvest. I worked for honey and not increase, by hiving swarms with others that had recently cast a swarm, by cutting queen-cells, and lastly by removing the queen. I was only successful by the last method in preventing increase, and I believe it to be the only way that it can be done; but it is a question with me whether we get as much honey as by allowing swarms. Our surplus honey in this locality comes principally from clover and basswood. I have never got a pound from buckwheat or fall flowers.

Carniolan Bees Compared.—Judge Laurens Hawn, of Leavenworth, Kans., on Sept. 24, 1889, writes:

I have 80 colonies of bees, and I am preparing to winter them in the cellar. I will say of my Carniolans, that the queens are larger and more prolific than my Italians; the workers are also larger, very gentle, being easily handled without smoke. They stick to their combs so quietly and tenaciously, that a comb covered with bees could be taken to the house, the queen removed, and the comb replaced in the hive, without dislodging a half dozen bees. They are readily distinguished by the white bands, which, when the bees are in the shade, give them a silvery-grey appearance, which at once discloses their identity. They may be distinguished from the blacks at once, without trouble. The queen is larger and stouter than the black queen, and more of a dark-bronze color. With me the Carniolans are better honey-gatherers than the blacks, their combs are whiter, and they use mostly wax in place of propolis. As compared with Italians, I am not prepared to say that they are equal in honey-gathering qualities. I shall watch them carefully next season. In hiving, they are more easily managed than either blacks or Italians; their queens are very fine.

Results of the Season.—A. C. Loomis, Grand Rapids, Wis., on Sept. 27, 1889, writes:

I increased my apiary from 5 colonies to 10—3 colonies giving the increase. Those 3 seemed to do nothing but swarm; the other 2 stored the honey. It took about twice as long as usual to get the new swarms to work in sections. I had an average of 48 pounds per colony, spring count, against 67 pounds last year. I have had seven years' experience with bees, but under the present circumstances I have to keep a small apiary.

Knowing All About Bees.—John Boerstler, Vashon, Wash. Ter., on Sept. 17, 1889, writes:

When I commenced to keep bees, about 25 years ago, I got "log-gums" first, and boxes for some time, and did not know of any bee-paper or bee-books until I spent about $125.00 for humbug moth-proof hives. Just think of it, moth-proof hives! Then I happened to get the AMERCAN BEE JOURNAL, and soon after *Gleanings*, and then I began to see where I missed it by not having any bee-books to read. But those days are gone, and the beginner now can get bee books and papers, and can save many dollars by reading them; for bee-keeping cannot be learned in one year—the bee-keeper can learn all his lifetime. Perhaps some think that they know it all; and those are the kind that will never learn. My advice would be to have only one kind of hives in the apiary, and then read two or three good bee papers or books on bee-culture, and then take good care of the bees, for it will save a good deal of money and time: then by working with the bees it will soon be discovered that bee-keeping cannot be learned in one or two years—it has been a life study for me, for I am learning yet, and expect to do so until I die. The little yellow bees have some funny ways about them very often, that will puzzle any old bee-keeper, for they are full of tricks, and it is hard to learn all of them. I, for one, get puzzled occasionally in swarming-time. Whenever you hear of a man that knows all about bees, please tell him to write a book, and I, for one, will give him $10 for it; but I do not want any more humbug in mine.

Wintering in Box-Hives.—O. R. Hawkins, Bellport, N. Y., on Sept. 24, 1889, writes:

The season here has been very poor so far, on account of the extreme cold and rainy weather. In my apiary I have 7 box-hives containing bees, 2 of which have their hives only partly filled with comb; I have taken no honey from the hives this year, and expect to get very little. Will the two without a full hive live through the winter? I started with 2 colonies, hived 6 swarms, and had one that went to the woods, and another I killed, leaving 2 old colonies and 5 new ones.

[In box-hives it is difficult to tell whether the bees have stores enough for winter, but as you have taken no honey away from them, they probably have enough to carry them through until spring, if you have had any flow of honey at all. *That* you ought to be able to decide, as you are "on the spot."—ED.]

Sugar for Queen-Cages, etc.—J. H. Christie, Dyersburg, Tenn., on Sept. 23, 1889, says:

I have just read Mr. Doolittle's article on page 581, and the idea suggests itself to me, that if he would use coarse-grained sugar (say New Orleans seconds), and fine wire-cloth, the same as is used in milk-strainers, all danger of sifting through into the mail-bags will be obviated. By the way, Mr. Editor, you have gotten me into difficulty, and I want you to get me out of it. It comes in this way: I have been reading the AMERICAN BEE JOURNAL for twenty years, and it has taught me so much that I have nicer honey than any of my neighbors, so that were you to ask them if they were going to take any honey to the fair, they would say, "No. Why, old

man Christie will be there with his, and I cannot compete with his nice honey, so we will not try this year!" So the fun is all spoiled, unless I had some to compete with. Now you must get me out of that difficulty. My bees swarmed but little, and stored about half a crop; but they are doing nicely now, preparing well for winter. I give my vote for the golden-rod as the national flower.

[Oh! that is easy. Just educate your neighbors' sons who keep bees, and bring them up to your standard of excellence.—ED.]

Bees Did Well.—J. F. Eikenberry, Greene, Iowa, on Sept. 28, 1889, says:

The honey season is over. Bees did well in this locality in the forepart of the summer, but the fall honey crop was very poor, on account of dry weather. I got 2,492 pounds of very fine honey—never saw any better. I will sell it all for home consumption. I started last spring with about 30 colonies, and have now 67 in good condition for winter. I like the BEE JOURNAL very much.

Bees in a Boxed Fence-Post, etc.—E. L. Pratt, of Marlboro, Mass., writes:

As I was passing a prominent street-corner in Concord, the other day, I discovered a swarm of bees in a boxed fence-post. They were working like "good fellows." Authority stepped up and ordered them smothered. No words would be taken with regard to removing them in a rational way; so at night-fall the poor little bees were sulphured to death in the heighth of their prosperity. The post could have been removed, bees and all, with little trouble; it was a rotten affair, and a new one would have improved the looks of the corner greatly.

I have read several very generous reports of the "bee-suits" being fought out by the Union, in leading Eastern daily papers.

I have been doing considerable doubling up of colonies for the last two weeks. Fall honey is coming in first-rate. There was none last year at this time (Sept. 1). Buckwheat is yielding in fair quantities, and of good grade. There will be no feeding this season, thank the Powers!

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

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Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

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Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

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We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
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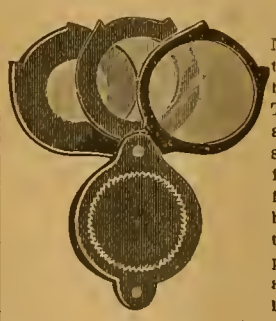

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	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2 25
500 Labels	2 00	3.00	3.50
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☞ Samples mailed free, upon application.

Having a Few extra sets of the AMERICAN BEE JOURNAL for the years 1887 and 1888, we will supply both these years, and 1889 and 1890, for $3.00, until all are sold. Or we will send 1888, 1889 and 1890 for $2.50, all by mail, postage paid. These are very valuable, and those who have not yet read them should lose no time in securing them.

Honey and Beeswax Market.

KANSAS CITY.

HONEY.—White clover and linden 1-lbs., fancy, 14@15c.; good, 13@14c; dark, 12c; the same in 2-lbs., 13@ 4c.; dark, 12c. Extracted, white, 8c.; dark, 7c. Demand is good. Sales large for this time of year.
Sep. 27. HAMBLIN & BEARSS, 514 Walnut St.

PHILADELPHIA.

HONEY.—That in the comb is now arriving and the demand is increasing accordingly. The outlook is still favorable for good prices for fancy honey.—We quote fancy honey in neat crates as follows: 1-lbs., white, 17@18c.; 2-lbs., 14@15c.; buckwheat 1-lbs. 12@13c.; 2-lbs, 10@11c. Off grades of all kinds generally 1 to 2 cts. less. Extracted, white clover, 8½c.; orange blossom, 7½@8c.; off grades, per gal., 60@70c
BEESWAX.—23½@24½c.
Sep. 5. WALKER & McCORD, 32 & 34 S. Water St.

DENVER.

HONEY.—We quote: In one-lb. sections, 16@18c.; off colors, 14@16c. Extracted, 7@8c.
BEESWAX.—24@25c.
Sep. 20. J. M. CLARK COM. CO., 1421 15th St.

NEW YORK.

HONEY.—Extracted, white clover, basswood, orange blossom and California, 8c.; buckwheat, 6 cts; common Southern, 65@70c. per gallon. Demand is good Comb boney, fancy white 1-lbs, 16c.; 2-lbs., 14c. Fair 1-lbs., 14c; 2-lbs., 11@12c. Buckwheat, 1-lbs, 11@12c; 2-lbs., 10@11c. Demand very good for fancy white 1-lbs., and buckwheat 1-lbs.
BEESWAX.—22c.
Oct. 2. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—It is arriving freely and we note some little accumulation, but all will be wanted later on. White clover 1-lbs, according to style of package and appearance, 13@15c. Dark 1-lbs., 10@11c.; 2 lbs., 8@9c. Extracted is in light demand values ranging from 6@8c., depending upon the style of package, quality, etc.
BEESWAX.—25c.
Sep. 21. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—It is selling slowly yet, but with colder weather we look for more active trade. Market is well supplied with honey, it being in many hands. In lots it cannot be sold at over 13@14c., and in cases even less, if not in first-class condition. Extracted, 6@8c; white clover and basswood, in kegs and barrels, 7c.
BEESWAX,—25c. R. A. BURNETT,
Sep. 10. 161 South Water St.

DETROIT.

HONEY.—New crop is coming in slowly, and sells at 14@15c. for comb.
BEESWAX.—23c.
Aug. 21. M. H. HUNT, Bell Branch, Mich.

ST. LOUIS.

HONEY.—We quote: Choice white clover comb, 12@12½c.; fair, 10@11c.; dark, 7@8c. Extracted, in barrels, 5@5¾c.; in cans, 6@6½c.
BEESWAX.—24c. for prime.
Aug. 21. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—We quote: Fancy white 1-lbs., 16c.; 2-lbs, 14c. Off grades about 2c. per lb. less. Buckwheat 1-lbs., 11@12c.; 2-lbs., 9@10c. Extracted basswood and clover, 8c; orange bloom, 8c.; California amber, 7@7½c; buckwheat, 6@6½c.; Southern, 65@70c. per gallon
HILDRETH BROS. & SEGELKEN,
Sep. 10. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—Receipts have been a little in excess of sales, and there has been a disposition on the part of some to reduce prices We quote: 1-lbs., 16@18c.; 2-lbs., 16@17c. Extracted is stronger in price, and promises to be even higher, the market being from 8@9c.
BEESWAX.—None on hand.
Sep. 23. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—We quote extracted at 5@8c. per lb. Comb, 11@16c. Demand fair for all kinds. Arrivals of extracted are good, while good comb honey is scarce in this market.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Sep. 11. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—White one-pounds, 13@14c.; rough and white 1-lbs., 12 13c; dark 1-lbs, 10@12c.; white 2-lbs., 12@13c. Extracted, white, 7@8c.; dark, 5@6c.—Demand improving.
BEESWAX.—None in market.
Oct. 4. CLEMONS, CLOON & CO., cor 4th & Walnut.

MILWAUKEE.

HONEY.—New crop is coming in and of very fine quality. Demand is fair and values easy. Choice white 1-lbs., 14@15c.; 2nd quality 1-lbs., 1½@14c.; old 1-lbs., 10@12c. Extracted, white, in tins and pails, 8@8½c.; in barrels and kegs, 7@8c.
BEESWAX.—22@25c.
Sep. 5. A. V. BISHOP, 142 W. Water St.

A Handsome Present.—As the convention season is just approaching, we want to direct attention to the little book which every bee keeper needs when attending these gatherings. Here is what Mr. J. E. Pond says about it:

DEAR EDITOR:—Your little "Convention Hand Book" is really a very handy thing. At two or three different times I have been called on to get up something for special occasions, and I have found the "Hand-Book" just the thing to save me quite an amount of time and labor, as it was a very simple matter to use the "book" as a basis, making only such few changes as were necessary to fit the special time and place.

I can cordially recommend it to any one who may desire not only information, but a *perfect form* for organization of a convention of any kind of a convention, as it will "fill the bill" completely. J. E. POND.

Every Hand-Book contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with subjects for discussion. They sell at 50 cents each, and are nicely bound in cloth covers.

We make every subscriber this offer: Go and call on your neighbor who keeps bees and ought to take the BEE JOURNAL. Get his subscription and one dollar for a year; send it to us, and we will *present* you a copy of the Hand-Book for your trouble—by mail, postpaid. Here is a grand chance for all to get a valuable book without costing them a cent!

Advertisements.

HONEY

WE are now ready to receive shipments of **HONEY**, and would be pleased to open correspondence. Liberal advances made on consignments. Let us hear from you, as we can render prompt returns at the top market values. Reference on file with the American Bee Journal.
S. T. FISH & CO.,
39A10t 189 So. Water St., CHICAGO, ILL.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,
SQUARE GLASS HONEY-JARS, etc.
For Circulars, apply to
CHARLES F. MUTH & SON,
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IN 25 and 30 pound Cases, and about ¾-lb. Sections, **well filled**, in paper or pasteboard boxes. Will not sell less than 12@13c. per lb., any year. We can never fill all of our orders for such, as no bee-keeper uses the same style section and case, which curtails the demand for Honey, as orders can seldom be duplicated. Such is selling now at 13 cents per pound. All bee-keepers should use this style and size of section.

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Wholesale Dealer, ALBANY, N. Y.
☞ Reference — Albany County Bank, or any Mercantile Agency.
Mention the American Bee Journal.

No. 1, $2.00...No. 2, $1.75...No. 3, $1.50.
No. 4, 1.25...No. 5, 1.00...No. 6, .65.

Knife, $1.15.

On receipt of the above price,

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RERUM COGNOSCERE CAUSAS,

TO know the Causes of Things is the key to Success in any industry. If you wish to succeed in the **Bee-Business**, you must read and become acquainted with the most Successful Methods of Bee-Management and Honey-Production.

LANGSTROTH'S WORK,

REVISED BY DADANT,

Contains the result of **practical experience** with Bees. It gives the Physiology of the Bee, with numerous **Quotations** from the latest Scientific Writers, the Description of the **best Hives**, Directions for the Proper Management and Handling of Bees; the most **Practical Methods** of **Queen-Rearing, Swarming** (Natural and Artificial), with controlling methods; instructions on Establishing Apiaries, Transferring, Shipping, Mailing, Feeding, Wintering; the best methods of producing **Comb and Extracted Honey**, the Handling an Harvesting of Honey, the Making of Comb Foundation, &c., &c.

The instructions for the **Rendering of Beeswax** are alone worth the price of the Book, to many bee-keepers who waste a part of their Wax in Rendering it.

This Book, "the most complete ever published," is shortly to be published in the French, Italian and German Languages, by Practical European Apiarists. It is highly recommended by all publishers of Bee-Literature in the Old World as well as in the New.

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Price: By Express, $1.85. By Mail, prepaid, $2.00. Special prices to Dealers who wish to advertise it in their Circulars.
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SECTIONS! SECTIONS! SECTIONS!

WE are now offering our No. 1 V-Groove Sections in lots of 500, at $3 per 1,000; No. 2 Sections at $2 per 1,000. For prices on Foundation, Hives, Shipping-Crates, &c., &c., send for Price-List. Address,
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(Successors to B. J. Miller & Co.)
31Atf NAPPANEE, IND.
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FOR SALE—SPIDER-PLANT SEED.
G. M. WHITFORD,
40A2t Arlington, Wash. Co., Nebr.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Oct. 19, 1889. No. 42.

EDITORIAL BUZZINGS.

The Loss by Fire sustained by Mr. E. T. Abbott, of St. Joseph, Mo., as mentioned on page 611, makes it necessary for him to sell his bees *at once*, in order to raise necessary funds to meet his obligations. Any one within shipping distance who may want to buy some bees, would do a kind act by buying them of him. It will *help* him over the hill of difficulty that he is now trying to climb.

From Prof. N. W. McLain, Director of the Agricultural Experiment Station, of the University of Minnesota, we have received Bulletin No. 8, which gives reports upon Siloing Clover, Sources of Home-Made Manures, the By-Products of Wheat, the Rocky-Mountain Locusts in Otter-Tail Co., Minn., in 1889, etc. The latter is an exhaustive treatise, and is extensively illustrated, showing these pests in their various stages.

R. McKnight, Esq., Owen Sound, Ont., has sent us a large photograph of his residence, which shows that he believes in taking solid comfort in his home life. The massive residence, beautiful lawn, copious barn, and interesting family, all shows that he enjoys his surroundings, and the name of the place, "Homewood," is expressive and appropriate. He has our best wishes for happiness and prosperity.

He has also sent us a photograph of his honey exhibit at the Industrial Exhibition at Toronto, mentioned last week on page 643. It is no wonder that he carried off so many prizes.

The Autumn Catalogue of Christian Weckesser, of Marshville, O., is on our desk, with offers of queen-bees, small fruits, plants, etc.

The Northwestern Convention met as announced in this city last week. The number in attendance was very creditable—about 80—and all were enthusiastic and entertaining. About 10 lady bee-keepers were present, and some of them took part in the discussion—particularly that veteran, Mrs. Lucinda Harrison. Five sessions were held, and the enthusiasm did not lag at any point.

The proprietors of the Commercial Hotel, where the Convention was held, and where the headquarters were established for all in attendance, endeavored to make all their visitors feel at home, and won golden opinions for their promptness and attention on every hand. Every one, from the proprietors, Messrs. Dabb & Co., to the bell boys, seemed anxious to serve us with the best this popular house affords. Bee-keepers coming to Chicago, could not make a better selection than the Commercial Hotel during their stay in the metropolitan city of the West, which sits like a Queen on the shore of beautiful Lake Michigan.

The Convention had no set programme, but the discussion included everything, in the line of apiculture.

The daily papers, as usual, poked fun at us, and characterized our sessions as "queer, droll meetings of farmers, with long, shaggy beards, and informal to the last degree." Of the discussions, the *Herald* says:

An almost illimitable supply of questions was discussed. They were furnished in a way entirely in keeping with these informal meetings. When any member of the conference desired to be enlightened on any particular point in bee-culture, he wrote the question out on paper, and laid it on the chairman's table. Then it was announced to the meeting, and, after being thumped and kicked around among the delegates till the wind was knocked out of it, it was laid aside for the next one proposed....

They talked straight from the shoulder, and when they came upon a point that needed particular emphasis, walked up before the chairman and fired it straight at him.

After making some more foolish assertions about what was done, the reporter drew on his imagination for the following, for nothing akin to it was enacted:

"What kind of a hive is best adapted to down the swarming fever?" was one of the questions that were raised. It had no sooner been announced than one old fellow in a far corner of the room broke out of a deep sleep, and, springing to the floor, yelled, "Mine!" He then went into a long discussion about divisible brood-chambers, shifting crates, artificial wooden combs, and other things that go to make a bee feel at home in a wooden hive.

Another delegate made some such remarks as, "Hold up the king and discard the queen." The queen of a swarm of bees seems to be the most potent power in the party, and whatever she can be induced to do is readily adopted by the rest as the proper caper. The bee-keeper who cannot manipulate the queen might as well liberate his swarms and seek a new occupation.

The reporter remarked that a member of the Northwestern Society would catch any swarm by simply going up to a tree where it had settled, and "cluck and whistle until the bees settled into a compact ball," etc.

With this starter in Saturday's papers, we need not wonder that Sunday's *Inter Ocean* should contain the following:

Yesterday's session of the Bee-Keepers' Convention was taken up mainly by the discussion of how best to exclude the adulterators and imitators of honey from the legitimate honey market. The methods of testing honey by chemical analysis were reviewed by the scientific members of the body, and it was clearly shown that no house-keeper need lack the knowledge or means of assuring herself regarding the purity or impurity of honey purchased by her....

A committee was appointed for the purpose of bringing the combined influence of the bee-keepers of the country to bear upon their respective congressional representatives, with a view to the enactment of a law analogous to that of protecting dairy butter—whereby all imitations or adulterations of the genuine article shall be marked or branded as such, under suitable penalty in case of neglect.

The Sunday *Times* had a similar announcement, beginning with these words: "The Bee-Keepers' Convention yesterday declared war against the honey-factories"—a pure fabrication.

The session on Saturday began at 9 a.m., and lasted until 1:30 p.m., and up to within ten minutes of adjournment, not a word had been said about "honey-factories" or adulteration. It was then stated that at the Exposition a method for testing honey by chemical analysis was being exhibited, etc., and it was suggested that a committee be appointed to look into the matter. As it was already past the hour of adjournment (1 o'clock), and many had left for home (among them President Miller), and as all remaining were suffering the pangs of hunger, and wanted to go to the dining room, the vote was put—and stood 11 to 12 for a committee. A motion to adjourn was then made, and there was a rush for dinner.

Bee-keepers need no legislation against adulteration, for it has been killed by the low price of honey! When it does not *pay* to adulterate, no one wants to take the trouble to do it, and as a result but very little, if any, adulterated honey can anywhere be found! All the "swash" in the daily papers about adulteration is, therefore, without foundation or excuse.

New York Honey.—Mr. E. L. Pratt writes thus: "Cobb, Aldrich & Co., large retail grocers of Boston, Mass., have on display, in their show-window, 45,000 pounds of New York clover honey in scant-one-pound sections, at 15 cents per section. It attracts a large crowd of people about the show-window." That is a sacrifice.

A. D. Ellingwood, of Milan, N. H., took two prizes at the Lancaster Fair—one being for comb honey. The *Gazette* says: "The show in Floral Hall was very good, and we noticed a fine display of honey by Mr. Ellingwood, of Milan."

The First Engraving on page 648 is an unfinished sketch. It was sent by an oversight of the author, and is meaningless.

GLEANINGS OF NEWS.

The International Convention.—The Editor of *Gleanings* has sent us advance sheets of the following article, which will appear in the next issue of that periodical :

Where Shall we Hold the Next National Bee-Keepers' Convention?

SHALL IT BE CHANGED FROM BRANTFORD, ONT., TO BUFFALO, N. Y. ?

The *Canadian Bee Journal* for Sept. 18, 1889, contained an editorial touching upon a point that I had been thinking of for some time. It reads as follows :

While at Buffalo, we lost no opportunity of inviting our American friends to be with us at the coming International Convention, to be held at Brantford in December, and we were encouraged by many promises to be present. We hope that our Canadian bee-keepers will not forget to be present, and give our visitors such a welcome as they deserve. By the way, would it not be mere justice to place the holding of the next convention at Buffalo ? The bee-keepers there would like it, and it will give Canadians a good chance of again being present. Besides, the Eastern States are deserving of it in their turn. Think of it, and come prepared to do the matter justice, in the best interest of the association.

This set the ball rolling; and, of course, in view of the foregoing considerations, I could not help giving it another boost by writing the following letter to Dr. Mason, President of the Association, which will explain itself :

FRIEND MASON :—The last leading editorial in the *Canadian Bee Journal* for Sept. 18, strikes upon a point that I have been thinking of for a long time. The reason the next International Convention was located at Brantford, was because its Secretary lived there, and could see to all the necessary business ; but now I am informed he has moved away, and has been away for some time.

Now, the question comes up, what attraction or what reason is there for having the convention in a small town in Canada, with nothing particularly to call it there *now ?* The population of Brantford is only 13,000, and it is but 70 miles from Buffalo by rail. Why would it not be a good scheme to change the convention to Buffalo, on the border of the two countries, in a city of 250,000 population, and in the vicinity where some of the best bee-keepers in the world are located ? We can surely get better rates of travel to Buffalo.

Furthermore, there is a good, live man by the name of O. L. Hershiser, with whom you are acquainted, in that vicinity, and you may be sure he will leave no stone unturned to make the next International a success, so far as accommodations, rates of travel, etc., are concerned. Buffalo, in the winter time, is a place of great resort, on account of the Niagara Falls, and I am satisfied that a much larger attendance can be had by some outside attraction than by bees alone. At New Orleans there was the largest attendance at the International in its history ; and the reason of it was the World's Exposition. We were interrupted a little, it is true, by those coming in and going out; but I would a great deal rather attend a convention where there is a large attendance with some interruptions, than a small, one-horse affair, with an international name, and no interruptions.

Now, my better half and I, and, in fact, the whole of the Roots, want to see Niagara Falls in the winter. For the sake of the women, therefore, and for the sake of securing the presence of the New England and New York bee-keepers, exert your influence in favor of Buffalo, N. Y. The Canadians, according to the *Canadian Bee Journal*, will be just as willing to attend. There is nothing at Brantford now to attract the convention, and there is no reason why it should be held there.

I will write to Prof. Cook, and also to Mr. Newman, and the Secretary, Mr. Holtermann. The latter, under existing circumstances, would, I think, just as soon, have it at Buffalo as at Brantford. We changed our place of meeting last year, and why not change it now ? Times and circumstances alter things very materially, sometimes.

ERNEST R. ROOT.

Medina, Ohio, Sept. 24, 1889.

Hardly deeming it advisable yet to do anything about it in print, I sent press copies of this letter to Prof. Cook, who originally proposed meeting at Brantford, and to the editor of the AMERICAN BEE JOURNAL, Mr. Newman. The following replies were received, all of which seconded the change. The first one is from the President, who writes as follows :

FRIEND ERNEST :—Yes, I am in favor of a change of the place of meeting of the International Convention, *provided* that the Canucks so desire. Come to think about it, though, I do not think that it is any of their business, with the exception of Messrs. Jones and Holtermann. I believe they are the only members in Canada. Why not put it at Niagara Falls, on the Canadian side, then we should be right where we could see the "beauty" without leaving the convention ? I am willing to go anywhere that my friends will allow ; and if I am "short" in December, you will not see me at the convention ; but I *hope* to be there, and Mrs. Mason with me. A. B. MASON.

Auburndale, O., Oct. 1, 1889.

I think I should still prefer Buffalo as the place of meeting, to Niagara Falls itself. Buffalo, besides being centrally located, is so near and accessible to the Falls that those who so desire can visit them *after* the date of the convention. If, on the other hand, it were held at the Falls, there would be more or less interruptions *during* the session. In other words, Buffalo would be just near enough to be an attraction, and yet sufficiently removed from the roar of the great cataract to avoid interruptions.

Prof. A. J. Cook writes in this manner :

Dear Friend :—I think your reasons are good. We all only wish the best interests of the Association. If they would be best served by changing to Buffalo, as seems likely, then I say Buffalo. I see no objection, unless the Secretary or the Canadian bee-keepers object. A. J. COOK.

Agricultural College, Mich., Sept. 30, 1889.

Brother Newman indorses it in this vigorous style :

Friend Root :—Yours is received, with press copy of letter to Dr. Mason, which I have read carefully. If the Canadians do not object seriously, I see no reason why the convention should not be at Buffalo. Our best convention was held at Detroit in 1885, on the border between the United States and Canada. The meeting at New Orleans was not one of the National Conventions. It was an *extra*, but it was good, and just as you say. Count me and the AMERICAN BEE JOURNAL in favor of Buffalo, and send me *advanced proofs* of matter for *Gleanings* about the change, and I will *second your motion*, and support it to the best of my ability. THOMAS G. NEWMAN.

Chicago, Ills., Sept. 30, 1889.

Perhaps I should have sent a press copy to the Secretary, R. F. Holtermann, now of Romney, Ont., Canada, but not then remembering his address, it was overlooked until now. I feel quite sure he will indorse the change.

Now, then, you have the full facts before you. That we may ascertain the pleasure of the members of the Association and others, I suggest that those who favor the change, and also those who do not favor it, write directly to Thomas G. Newman & Son, 925 West Madison St., Chicago, Ills., recording their vote : and Messrs. Newman, after receiving them, can transmit them to the officers of the Society, who will act accordingly.—ERNEST R. ROOT.

In the above article Brother Root asks for opinions of bee-keepers to be sent to us relative to changing the location of the International Convention to Buffalo next December. This was done without consulting us, but we will attend to the matter with pleasure. We favor the change, if it receives the endorsement of Mr. Holtermann, Mr. Jones, and other Canadians. They should have been consulted first.

Later.—Since the above was put into type, we have heard from several Canadians —among them being Messrs. Macpherson and Holtermann—and *as they do seriously object*, there can be no change from Brantford for the next International Convention —but for the sessions of 1890, Buffalo is just the place. The suggestion came too late. Let us now dismiss the subject, and work faithfully to make the Convention at Brantford a successful and interesting occasion.

The Honey Season in Scotland is thus described by a correspondent in the *Record* for this month :

Once more we are within measurable distance of the close of the honey season. Though it has not turned out such a honey-flow as was anticipated in the early summer, nevertheless things look brighter for the bee-keeping industry than has been the case for several years. The crop of honey may be said to be a fair average one. It will be generally conceded that colonies in the spring were in a very backward condition, through scarcity of food and want of bees. The early spring encouraged brood-rearing, however, and, before June closed, reports were current of 100 pounds of surplus being taken from single colonies.

It is some years since the heather looked so promising as it did at the end of July ; but unfortunately bad bee-weather came when the bloom was at its height, consequently the yield of honey from this valued source was not great.

The exhibits of extracted honey shown throughout Scotland this season have been very superior in flavor, color and consistency. Sections have not been first-class ; perhaps this may be attributed to the quantities of *worked-out* sections left from last year to be filled this season, and which in nearly all cases fail to produce good quality sections.

The Carniolan Apiary of E. L. Pratt, of Marlboro, Mass., is shown on this page. Concerning Carniolan bees, Mr. Pratt writes as follows:

I think that the Carniolan bees have the advantage over all other races, because they are almost a *perfect bee* in the rough, as we have them now. With a reasonable amount of good breeding these bees will, without doubt, far exceed the most popular Italian, on account of their extraordinary breeding power, hardiness and prolificness. Carniolans, in their purity, are gentler than any other race I know of. Their honey-gathering qualities are in accordance with their strength.

The only argument against them is their swarming, which I do not find a bad fault with the new management for comb honey. My bees have not swarmed as much as they did when I kept Italians. There is seldom any robbing in a Carniolan yard, and it is with great freedom that one goes about his work with no fear of stings.

In the distance, among the grass, are shown a few of the nuclei hives—one hundred in all.

These hives all take the Cary frame, with ten to the large, and from three to five to the nuclei.

The operator is your humble servant. He is just opening an imported-stock hive, without the use of smoke, during a clover harvest.

During this season, 1889, not a single queen has been lost at mating time, out of the hundreds reared. This is on account of vigor of the young Carniolan queens, keeping all nursery hives a good distance apart, and allowing the grass to grow up about them. All the breeding is done from very fine home-bred queens, and mated with the finest drones from tested imported stock. We are firm believers in breeding from the best drones as well as from the best queens.

Mr. Pratt was the editor of the *Queen-Breeders' Journal*, which has now been consolidated with the *Western Apiarian*.

Raising Alfalfa in Texas.—W. L. Moore, of Denton county, Texas, in the *American Agriculturist* for October, describes his method of raising Alfalfa as follows:

The soil best suited for raising this valuable forage plant is a deep sandy or waxy loam. It grows best in this State on the low lands, and its yield is fine. There are other soils here well adapted to it, which are now planted to cotton, and are not producing as profitable crops as they would in this plant.

To prepare the ground for alfalfa, plow it deep and harrow it thoroughly with a smoothing harrow. This should be done from the 1st to the 20th of October, so that it would give the alfalfa time to take root before winter. If sowed broadcast, it will take from 12 to 20 pounds to the acre, or 12 pounds to the acre sowed in drills. The broadcast method succeeds well in this State, when there is a good season for it to take root. The seed should be covered to the depth of 3 inches, to insure a good stand.

It may be cut at least three times in a good season—once each in June, August and October. If the season is unfavorable, it can be cut only in June and August. If housed as soon as cut, it makes a splendid feed for winter.

The manner of growing alfalfa in Texas, doubtless would work well in the North. This is an excellent honey-yielder, as well as a large producer of good hay, and should be extensively grown in localities where it will thrive. The seed can be obtained at this office at 32 cents per pound, post-paid, or at $3.00 per peck, by express.

The Queen-Rearing Apiary of Mr. E. L. Pratt.

I often show my best colonies to visitors without using smoke at all. To them it is a wonder. A pure Carniolan bee should show no yellow anywhere upon its body. The abdomen should be of a crow-black stripe with wide brown or grey bands. When pure, they are beautiful.

Concerning the engraving, Mr. Pratt sent the following to *Gleanings* as a description of it:

The engraving herewith shows the northeast corner of what is known as the "Pratt Bee-Farm," of Marlboro, Mass. This apiary is wholly made up of the Carniolan race of bees, and is run for queen-rearing exclusively. It is located in the centre of a city of 13,500 population. A small brook is in the background. The large hives in the foreground are stock hives, of the Cary type. The first three or four rows contain imported queens, and they are constantly drawn upon for brood to strengthen nuclei, etc., which keeps them from swarming.

Those hives just to the left of the operator contain the finest breeding queens procurable. These bees will submit to rougher usage without anger, and will endure the severest weather with less risk, than any other bees that we are familiar with.

Uses of Beeswax.—An exchange contains the following paragraphs about the uses of beeswax, which will doubtless be interesting as well as valuable to many of our readers:

Beeswax and salt will make rusty flatirons as clean and smooth as glass. Tie a lump of wax in a rag and keep it for that purpose. When the irons are hot, rub them first with the wax rag, then scour with a paper or cloth sprinkled with salt.

To engrave on iron or steel, first clean the place you wish to mark, and cover it with a thin layer of beeswax, raising the edges so as to form a basin. Then write your name in the wax with a sharp instrument, cutting it through to the steel. When this is done, fill the basin with undiluted nitric acid, or aqua fortis, and let it stand awhile. The longer it stands the deeper it will cut. Then wash with water.

Please Read the article on page 627 of the BEE JOURNAL, on how to make "Honey a Staple Article," and then send us a Postal Card, if you have not already done so.

Bauplane für Bienen-Wirtschaftliche Bauten. This is the title of a new book in German by Josef Skach, Boitsberg, Germany, giving directions about building bee-houses, etc. Price, 1 mark. It is nicely illustrated, and is published by C. A. Schwetschke & Son, Braunschweig, Germany.

The Thing that Makes the Buzz.

BY H. D. CASTLE.

"Buzz! buzz! buzz! buzz! you big bumble-bee
Bending down the clover heads—can't you talk to me?
What a funny song you sing—buzz! buzz! buzz!
Should think you'd get your nose all full of daadelion fuzz.

"Don't you have a jolly time! honey every day?
Wearing all your pretty clothes when you go to play—
Nicest kind of velvet coat—yellow satin jacket!
Buzz! buzz! buzz! buzz! How do you *make* that racket?

"Now I've got you, bumble-bee, under my strawhat!
Buzz! buzz! buzz! buzz! I'll find out how you do that!
Pretty little bumble-bee, I won't spoil your jacket—
Oh! oh! oh! oh!"—Here's another kind of racket.

Mamma calls the bumble bee, "Naughty cross old thing!
Didn't little Freddie know all about his sting?"
"See how big it's swelling up! Oh dear! oh dear suz!
Mamma, is the stinger the thing that makes the buzz?"—*The Housewife.*

QUERIES AND REPLIES.

Raising the Hive from the Bottom-Board in Winter.

Written for the American Bee Journal

Query 661.—1. In putting bees into the cellar for winter, is it advisable to raise the hive from the bottom-board? If so, how much?—C. W.

I have never done so.—J. M. HAMBAUGH.

Yes. I raise it about 2 inches.—G. M. DOOLITTLE.

1. Yes, sir. 2. Two inches or more.—A. B. MASON.

1. It is. 2. A full half-inch will answer.—J. P. H. BROWN.

It is better to raise it, say half an inch, if practicable.—DADANT & SON.

I never have wintered bees in cellars.—J. E. POND.

1. Yes, sir. 2. About 2 inches is about right.—C. H. DIBBERN.

1. Yes. 2. Two or three inches.—MAHALA B. CHADDOCK.

1. Yes, if you use a loose-bottom hive. 2. Half an inch.—MRS. L. HARRISON.

1. Yes, where hives have movable bottom-boards. 2. One inch.—WILL M. BARNUM.

I should like all hives 2 inches above the bottom-boards, were it easy to arrange it so.—A. J. COOK.

1. I suspect that it is quite important. 2. I have planned to have a space of about 2 inches.—C. C. MILLER.

It is advisable to give plenty of ventilation at the bottom. It does not matter how.—M. MAHIN.

I think so. I remove the bottom-board and put inch pieces between the bottom of the hive and what it rests upon.—R. L. TAYLOR.

It will do no harm if the cellar is warm. The warmer the room, the more it can be raised.—EUGENE SECOR.

It in the very nature of the case depends upon the temperature and humidity of the cellar. In a very damp cellar, I should think it essentially necessary to do so.—G. W. DEMAREE.

1. I think that it is. 2. I put a "rim" between the bottom-board and the hive 5 or 6 inches deep, and consider it of great advantage. Those having hundreds of colonies may object to so much trouble.—J. M. SHUCK.

My experience last winter was not favorable to having the hives raised from the bottom-boards. Neither should the bottom-boards be removed unless the temperature is kept as high as 48°. It is better to make the frames 3 inches deep, with stout muslin on one side, and filled with timothy-hay chaff. Place over the frames, and leave the bottom-board as in summer.—G. L. TINKER.

I think not. It is a troublesome maneuver, as it exposes too much entrance for the bees to fly out of and make trouble. I am sure that success or failure in wintering bees depends upon the disease called "bee-diarrhea." You cannot stop it, nor produce it, by dropping bottom-boards, or failing to drop them.—JAMES HEDDON.

If the bottom-boards are loose, the hives may be raised from them from half an inch to 2 or even 3 inches. But its advisability to do so, depends upon the temperature and humidity of the atmosphere in the cellar.—THE EDITOR.

Getting the Greatest Volume of Smoke from Sulphur.

Written for the American Bee Journal

Query 662.—By what means can the greatest volume of fumes be obtained from a given weight of sulphur?—E. & W.

I do not know.—EUGENE SECOR.

I do not know.—J. M. HAMBAUGH.

By burning it, I believe.—A. B. MASON.

I will not try to answer, as I have no use for sulphur, and never have had.—JAMES HEDDON.

I cover it over pretty well, and just let it burn.—C. C. MILLER.

Place it upon coals of fire at a white heat.—G. L. TINKER.

By using an inverted funnel, or hollow cone; placing each super or hive upon a stand directly over it.—WILL M. BARNUM.

If the querist wants to fumigate brood-combs or honey in sections, I will say frankly that I do not know.—J. M. SHUCK.

I should say by burning. By closing a small room, the fumes would be very dense.—A. J. COOK.

By using it in powder, and burning only a small quantity at a time.—J. E. POND.

By thorough combustion. Put the sulphur into an iron vessel, and place a thick piece of red-hot iron upon it.—R. L. TAYLOR.

Burn slowly, and have it shut up in a tightly-closed room or box.—MAHALA B. CHADDOCK.

By filling an iron pot about half full of hard-wood burning coals, and throwing the sulphur on top.—C. H. DIBBERN.

A given weight of sulphur, when burned, will produce the same volume of fumes under all circumstances. They may be more or less diluted with air, according to the space in which the sulphur is burned.—M. MAHIN.

I cannot say. An iron kettle with a little kerosene in it ignited, and sprinkle flour of sulphur over it, does very good work.—MRS. L. HARRISON.

The moment you start the sulphur to burning, it will give you all the smoke you want. Carry the fumes from the furnace by a draft-pipe into the chamber containing the articles to be acted upon by the fumes.—P. L. VIALLON.

I could not say. My method of burning sulphur has been to use a broad-bottomed dish having coals scattered over the whole bottom so that the sulphur was largely spread out. This keeps it, to a certain extent, from running together, thus allowing of greater combustion.—G. M. DOOLITTLE.

I prepare my sulphur for fumigating by drawing strips of paper through a pan of melted brimstone. I then ignite these in an iron pot. The apartment must be tight to *exclude the air*, and should remain closed for 24 hours, otherwise the larvæ of the moth will not be killed.—J. P. H. BROWN.

By burning the sulphur in a room so tight that the fumes cannot escape, and waste in bulk as the burning goes on. If the room is tight enough to hold the fumes, it is not so important as to the rapidity of the consumption by fire. Generally, the best results can be had by causing the sulphur to consume rapidly by fire.—G. W. DEMAREE.

The samp "volume of fumes" are "obtained from a given weight of sulphur" when it is ignited. A good way is to have an iron pot half filled with live coals, and then throw the sulphur on it, in a close room.—THE EDITOR.

Subscribers who do not receive this paper promptly, will please notify us at once.

CORRESPONDENCE.

QUEEN-EXCLUDERS.

Rearing Queens Above a Queen-Excluding Honey-Board.

Written for the American Bee Journal

BY G. M. DOOLITTLE.

From the numerous letters which come to me from those who have tried the plan of queen-rearing as given in my book, all of which speak of their success in using the same, I am led to believe that this plan is to succeed in the hands of all, in every locality, and in every clime. Believing this to be true, I am led to offer a few words for those who think that the plan is a "fussy one" as compared with the Alley plan and others.

Certainly the making of the cells-cups cannot be what is alluded to as "fussy," for these can be made during winter evenings, or at any time, this work being far better than passing away these unoccupied moments in sitting around the store or tavern, listening to the idle gossip there, as some are known to do. As this part of the work is so easily and quickly done, it hardly enters in as to time consumed, but, to be just, we will allow the time as five minutes to make the dozen cups for one colony.

Next we have the getting of the larvæ for the cups, and the two cells which contain the royal jelly, which is to be put into each of the cups. This will consume about five minutes more; while the putting of the same into the cups will take about ten minutes. I have often done it in seven. Then it will take about two minutes to slip this stick of prepared cups into the frame, and place it in the upper story of any hive which has a queen-excluder over it.

The work is now done until about the time the queens are ready to hatch, when it will require but a moment to take the frame of cells out of the hive, and about a minute a piece to put each cell into a nucleus; or into the apartments partitioned off at each side of the upper stories, where they are to hatch and become fertilized; for these cells can be picked off the frames as easily as apples can be picked off a tree, while no combs need ever be cut where the cells are to be inserted. Simply press the hard and the unyielding base of these wax-cells against the side of the comb until it is imbedded into the same, and it it is a fixture. The average number of cells which I secure from each prepared frame is ten, and as it takes but 33 minutes for the whole operation from beginning to end, we have about 3¾ minutes as the time consumed to the apiarist to secure a laying queen, by this "fussy" plan, as Mr. Alley and some others call it.

Well, I do not believe in cheap queens, as all know; but if I did, would not one dollar (the price usually charged for untested queens), pay me pretty well for 3¾ minutes' work? Now let us look at the Alley plan a little, and see how long it will take to get the same number of queens, which is about the number as recommended by Mr. Alley.

Of course you will want a swarming-box to keep the bees in for ten hours, which he recommends to prepare them for cell-building; but as this is easily made, and will last a lifetime, this is not worthy of mention.

Now you have to drum the bees out from a colony, so that they fill themselves with honey, and leave them in this swarming-box for ten hours. This drumming-out process will take ten minutes at least, if the bees have time to fill themselves with honey. Then it will take two minutes to take them to the cellar and get them again, and two minutes more to hive them into the hive where they are to build cells.

Next is the getting of the strip of comb containing the larvæ, the cutting it into strips, the killing of every other larva with the brimstone end of a match; the melting of wax and rosin to stick this strip on the comb, and the fastening of the same in place, which we will place at the very reasonable time of 15 minutes.

After the cells are completed we have to cut the strip of comb from the one to which it was fastened, cut the cells apart, patch up those mutilated in cutting, with a piece of foundation and a hot-knife, when they are ready for the nuclei. This operation will take at least five minutes; then it takes one minute each to put them in the nuclei, and three minutes to put the bees which built the cells back with their brood, or the brood and queen back with them.

By adding all the foregoing minutes together, the same as we did before, we have 47 as the number of minutes required to produce ten queens on the Alley plan, or 4⅞ minutes for each queen. By looking a little further, we find that if the queens are sold at $1 each, as was supposed by the first calculation, we have ten cents as the price which was received for each one-third of a minutes' work; so if we are to have the same price in this latter case, we must sell these queens reared by the Alley plan, at $1.40 each, to receive the same compensation for our labor. Surely, adopting the words found in one of our bee-papers, "So far as I am acquainted with Mr. Alley's method, I must say that if obliged to rear queens by it, or give up queen-rearing, I would accept the latter. The method requires more time and patience than I have to devote to such business."

Now, dear reader, you may think that I am prejudiced, but if so, it is only in failing to accomplish as much by the Alley and other methods in the same length of time that I desired to, and hence I went to work to see if a more expeditious way could not be found, and one by which the bees could be always left in just that condition which we had them for honey-gathering purposes, where the extractor was used.

By the plan which I have made public we have no *queenless bees* at any time; and have no bees doing *nothing* but *rear queens;* but on the contrary, the colony that is rearing queens is working for honey to the *same advantage* that it would under any other circumstances; while at the same time queens are being reared more expeditiously than by any other plan known to the writer; and that, too, after I have tried nearly every plan that I have ever seen mentioned in print.

If any think otherwise than I do, all that is needed is to try the different plans side by side, and then adopt the one which seems best to them. This is a free country, and I do not wish any one to use anything that I recommend, unless he can see that it is to his advantage to do so.

Borodino, N. Y.

GOLDEN-ROD.

Excellent Fall Honey from the Golden-Rod, etc.

Written for the American Bee Journal

BY G. H. ASHBY.

In answer to the request on page 636, allow me to say that golden-rod is our *best* fall honey-plant in Western New York. The fall honey we depend upon is, buckwheat, golden-rod, asters and Michaelmas daisy (called Micklemas), and they bloom in the order named. Golden-rod always yields the most of any, the weather being favorable. It begins to bloom about Sept. 1, and lasts about four weeks. It always yields well when the weather is favorable, and bees fairly swarm upon it at all times of the day. I think that were the days as long, and the weather as favorable as it usually is in clover or basswood harvest, we would get as much honey from it in the same time. The honey is a nice golden color (also the pollen), and quite heavy, but I think that it

granulates quite easily when uncapped in the cells or extracted. It is our main dependence for winter stores. It is very abundant, and very hardy, yet never troubling cultivated fields.

Getting Bees Out of Cases.

In answer to J. M. Burtch (see page 636), I would say that I think that he does not smoke the cases of honey at the right time. Smoke them in the middle of a day when the bees are working, when the mercury is above 65°, and they will move pretty lively. Take off a case before the bees begin to return, for after that you *surely* "cannot budge them." As the case is removed, quite a cluster may be on the bottom, which can be dislodged by a dextrous shake, and you will have nine-tenths of them out; the rest will leave very shortly, if put where robbers cannot reach them.

Albion, N. Y., Oct. 7, 1889.

THE SEASON.

A Woman's Account of the Work in the Apiary.

Written for the American Bee Journal
BY MRS. W. A. SHAFNIT.

We started with 35 colonies of bees last spring. The spring was very late and cold; apple-bloom came, but it was too cold for bees to work on it. Then came the locust, but the weather still continued cold. In the latter part of May our last year's queens were killed, and dragged out; nearly half of the colonies did this. We never saw anything like it before. The weather then commenced to warm up, and the fields were white with clover, and the air was sweet with perfume; it lasted until the middle of July, and within that time the linden gave a good supply of honey.

During June and July we had our honey-flow, for surely a flow it was, and it kept me busy three days out of the week, taking honey, with what help my husband could give me from his corn and harvest work, working from one to two hours every day at noon-time. He cut out queen-cells and introduced new queens. We did not let our colonies swarm more than once.

The honey flow ceased the last of July. The fall crop was promising, but proved too dry. Golden-rod bloomed, but there was no honey in it. We have had no golden-rod honey in this section of the country for three years. Our roadsides and fence-corners are lined with it.

We have 65 colonies now, and we are killing some of our poor ones, which are the blacks. Give us the Italians, and others can take the black ones, as some claim that "they are the best honey-gatherers."

Honey is cheap—only 10 cents per pound; we held ours at 12½ cents for a long time, but finally had to sell with others. Some of our older bee-keepers put the price down.

We are taking the cases off and preparing the bees for winter. We have considerable unfinished comb honey that we are extracting; it sells at 8 cents per pound.

Brighton, Iowa, Oct. 7, 1889.

GERMANY.

Legislative Protection for Apiculture in Germany.

Written for the Australasian Bee Journal
BY T. J. MULVANY.

There are few countries in which the taste for apiculture is more generally spread among the people, or in which the bee-keepers as a class are more intelligent, enthusiastic and energetic in co-operating for the promotion of their mutual interests, than in Germany.

As compared with the United States of America, there is not, perhaps, the same amount of go-ahead enterprise exhibited, and consequently the number of large apiaries kept by people who adopt that as their exclusive calling, is comparatively few. There are, however, a great many people who keep a moderate number of colonies, partly for their own use and gratification, and partly as a means of increasing their modest incomes, and amongst them probably a large majority consists of country clergymen, school-teachers, and men engaged in other business than that of agriculture.

These are generally thrifty, economical people, accustomed to live comfortably upon small means; and by them a few pounds per annum of additional income is looked upon as a matter of more importance than can easily be realized by people who judge of profits by the standard of "eight hours'" work and "eight shillings a day" for ordinary labor. Such a moderate earning can generally be obtained by the sale of a small quantity of comb honey, and, perhaps, of a few colonies of bees, all at remunerative prices, which can usually be commanded in the immediate neighborhood.

There is scarcely a man amongst those who keep even a few colonies, but belongs to a local bee-keepers' association, and regularly receives, and reads, his copy of the bee-paper selected as the organ of the society to which he belongs. Several of these local societies are affiliated to a provincial association, and these again to a Central National Association, which comprises all the separate States of the "Fatherland," and which holds periodical general assemblies, each year, in a different part of Germany.

This system of holding what they term "Wanderversammlungen," is peculiarly a German one; is universally adopted by men of science, members of the learned professions, artists, architects, engineers, both civil and mechanical, as well as by many of the trades and minor callings, and tends greatly to promote social intercourse and co-operative action between the members of each profession or calling.

The yearly assembly is fixed as a sort of holiday trip, usually in the Easter or Whitsuntide holidays, and occupies two or three days, which are employed in accordance with a well considered programme, in business meetings, social intercourse, and pleasure excursions.

The town or city selected as the place of meeting offers every possible facility and assistance to the executive committee charged with the general arrangements, and the railways usually issue return tickets at reduced rates for the visitors. The whole system is carried out with a strict regard to economy of means, which is rendered practical by the co-operation of large numbers for a common object.

For instance, in the local bee-keepers' societies, the annual subscription does not exceed two or three shillings, *including the price of the bee-paper*, which is supplied to those societies at the rate of one shilling per member, while the price to outsiders is three shillings per annum. This, again, is only possible where so great a number unite for the purpose.

The *Bienenwirtschaftliches Centralblatt*, which is the organ of the German Central Association, is a well-got-up paper of 16 pages, in pamphlet form, with an outer cover, issued twice a month, and has a circulation of 8,000.

To show how municipal, provincial, and central governments assist in promoting the movement, I may mention that in a late number of the *Centralblatt*, the following notice appears:

GERMAN APICULTURAL CENTRAL ASSOCIATION.

For the III Wanderversammlung and Exhibition of the German Central Association, to take place at Stettin, in September, the following grants of money have been made:

1. By the city of Stettin.....1,000 marks.
2. By the Province of Pommern..2,000 marks.
3. By the Royal Minister for Agriculture.....3,000 marks.

Further grants of assistance are in prospect, of which due notices shall be given, etc.

Now here we see £300 already granted as subsidies by the local and central governments, while further assistance is still expected. The railways, which are State property, will, no doubt, issue return tickets to mem-

bers of the societies at greatly reduced rates, and probably carry goods for exhibition free, etc.

I have gone into the foregoing details in order to show that in Germany there is at least as much energy displayed by the bee-keepers, and as much assistance afforded by the Government for the promotion of apiculture, as will be found in any other country. Still, among the general public there is as much of the same kind of ignorance and prejudice to be encountered, which, in the United States, have forced the bee-keepers to form a league for mutual defense in legal prosecutions, and which have already shown themselves in a minor degree in this colony, that it has been found necessary to apply for legislative protection against the wilful destruction of the bees, and against frivolous or malicious attacks upon the property and interests of the bee-keepers.

German Bee-Legislation.

On the 3rd of April last, a Bill was introduced into the Prussian House of Representatives, entitled the "Bee-Protection Act." The member who moved the first reading of the Bill, Herr Letocha, promised a speech of considerable length, by observing that he was not acting upon his own mere motion, but in the name and on behalf of the Central Association for Bee-Culture, and of the 20,000 bee-keepers who were members of the Association.

He then entered into a full explanation of the importance of apiculture in a national point of view, not only on account of the commercial value of the bees' products, but also with regard to the use of these products in medicine, and in many branches of industry—some of which, such as copperplate engraving, lithography, and zincography could not supply their want by any artificial surrogates; and, above all, on account of the services of the bees "in their relation to the bloom and splendor of our native flora, as well as the plenty of our fruits, and also the profitable yield of our harvests, generally speaking." In concluding this portion of his subject, Herr Letocha said:

> I have felt it my duty to go into these details, because, unfortunately, people are still found, even among the agriculturists, who have not the slightest idea of the relation between bees and flowers. Only yesterday I was told by one of our large landed proprietors that the bees caused him great injury, especially in his buckwheat and rape crops, inasmuch as they visited the fields so constantly during the period of the bloom, and sucked the strength out of the plants, so that they could only make a poor growth.
>
> Now, gentlemen, it is a fact, clearly established by experience, that the buckwheat, for instance, on the Luneburg moors, notwithstanding the poor soil of that district, is much richer in corn, or, as the farmer expresses it, gives a better yield, than on good soil in other parts of the country; and this is solely attributable to the fact that the farmers of that district are also bee-keepers who place their bee-hives during the period of bloom, near the buckwheat.
>
> It is also fully established that fields of rape, white clover and scradella, to which bees are brought during the time they are in bloom, afford a much richer harvest than those fields which are not visited by bees; and finally, experiments made by covering small areas of rape, when in bloom, with fine netting so as to exclude the bees, have had the result that the plants so covered yielded but little seed, while the fields immediately adjoining, where the bees had free access to the flowers, yielded a most excellent harvest.

The speaker next proceeded to quote some interesting historical facts to show that the protection of apiculture had been, from the early times, considered worthy of legislative attention. After alluding to the ancient Roman law, which provides that any one who wilfully destroyed his neighbor's bees should pay him compensation for the damage so done, he added:

> In Germany bee-culture was in a flourishing condition in the middle ages, and the bee-keepers were held in high estimation. Those who bred and kept bees were then named "Zeidlers," and possessed many and great privileges. They were, for instance, exempt from tolls in the imperial cities; they had also, under the Golden Bull of 1350, a separate jurisdiction of their own, under their "Zeidel-masters," from which only the most serious crimes were excepted.
>
> In Prussia, specially, bee-culture enjoyed a wise and large degree of legal protection. Thus, for instance, the paragraph 29 of the *Official Gazette* for the police districts in Prussia for the year 1642, ordered, amongst other things, the following:
>
> "And because the moors and forests are becoming few, the villages, however, God be praised, always more numerous, therefore shall the people be called upon to establish bee-gardens, and to pay particular attention to them, so that the wild honey, which would otherwise go to waste on the open fields, may be brought into the gardens.
>
> "Again, in the village regulations of 1702, the peasant farmers and cottiers are specially bound to keep a fixed number of bee-hives. Frederick the Great issued, under date of June 27, 1778, a regulation, *to be read yearly from the pulpits of the churches*, according to which those who should lay down poisonous matter mixed with honey, and thereby cause bees belonging to other people to be poisoned, should be punished, without respect of persons, with imprisonment, with or without hard labor, up to six years." (!)

This last instance shows that there must have been, at that time, a sort of crusade carried on by the misguided enemies of the bees, which called forth such vigorous action on the part of the great Frederick. Or can it be that the Prussians had then a "small bird nuisance" of their own, and that "the poisonous matter mixed with honey" was laid down for the same purpose as the poisoned wheat of our time, which, by the way, requires to be well sweetened to be effective, and which, in the case mentioned at the last meeting of the Otago Bee-Keepers' Association, caused the loss of whole colonies of bees last winter?

What would the farmers of Otago say if the Government were to follow the example of Frederick the Great? In any case it must be admitted that the punishment awarded was out of proportion to the crime, even if we assume that the poison was intended for the bees only.

Herr Letocha then pointed out in what respect the legislation of the present day is defective, and requires revisal in order to protect the property of the bee-keeper, and to forward the interests of apiculture. Amongst the arguments adduced by him in this respect are the following:

> Most of the townspeople, and even many of our great landed proprietors, know nothing of bee-culture but the name; but they look upon the bee as a sort of savage reptile, because it can sting; and because it occasionally finds its way into sugar-factories and confectioners' shops, they believe they have a right to exterminate it by means of fire, poison, or with steam and water. The common land-law, indeed, expressly acknowledges the property of the bee-owner in his hives, and also in the swarms which issue from them. These provisions of the law, however, are only too often paralyzed by one-sided regulations which the police authorities, ignoring the essential nature of the bee, believe themselves called upon to issue in the interests of the public, and in consideration of a stinging mania in the bees.

Here follow instances of such local regulations issued by the police authorities. For example, in Cologne, in December, 1858, a police order whereby it was decreed, under penalties, that "within the city of Cologne not more than 5 colonies of bees should be kept in one house, and the grounds belonging thereto, and then *so that they cannot fly upon strange property.* (From this wise regulation it would almost seem as if the learned authorities thought that bees were kept in cages, like canary birds!)

Then, in Worms, in July, 1879, a local regulation prohibits the keeping of bees or erections of bee-hives "in the southern and southwestern portion of the zemarkung Worms;" and in Bremen, a singular regulation forbids the keeping of bees "*in a portion of the city* and the adjoining zemarkung." But this is not all, Herr Letocha very justly remarks as follows:

> But under the existing laws, even in places where such special regulations have not been issued, the keeping of bees is more or less dependent upon the good-will of one's neighbors. There are, however, such things as malicious neighbors, and under some circumstances even good neighbors will quarrel, so that mutual chicane is brought into play.
>
> Now, should a neighbor, out of chicane or malice, complain that he is troubled by his neighbor's bees, the local authorities, as a rule, order under penalities, the removal of the apiary, even in cases where, owing to the local circumstances, any real damage to the neighbor is clearly out of the question?

The speaker then quoted cases of this sort, of great hardship to the bee-keepers. For instance, a school-teacher who kept a single hive in his garden was ordered to do away with it, because his neighbor complained *that the bees flew upon his crocus flowers* (!); and another person, a professional apiarist in Brunswick, who had made his living thereby "for decades of years," was, after lengthened legal proceedings and appeal to the highest court, compelled to give up his business, and to sacrifice his property, because his neighbors succeeded in proving in court

that, occasionally, swarms had settled on their grounds, and that one or two children had been once stung by a bee. He then adds:

Gentlemen, it is perfectly clear that where such occurrences are possible, apiculture cannot progress. According to the farm-stock census for Prussia in the year 1873, there were then 1,459,415 colonies of bees counted, which, taking the colony at 15 marks, represents a total value of 21,891,225 marks. By the census of 1883, there were only 1,238,040 colonies, or nearly a quarter of a million less. The national wealth invested in these colonies of bees had therefore been reduced in these ten years by nearly three and a quarter million of marks.

In the statistics for 1888, I find the bees were not included at all, and also in the report of the Minister to His Majesty, upon the agricultural matters in Prussia, bee-keeping is not mentioned. This is a proof that apiculture, although a very important side-branch of agriculture, is not valued and appreciated as it deserves to be. The further decline of our bee-culture is unavoidable, and must go on even more rapidly, unless legislative measures be taken better to protect both the bee-keeping and the bee-keepers.

Herr Letocha here referred to the fact that a Bill, such as he now brought in, had been introduced into the Imperial Parliament (Reichstag) in 1883, and had been well received and very influentially supported; but owing to an early close of the session, could not then pass through the later stages. It had been prepared under the advice of thirteen of the highest authorities in bee-culture, including Dr. Dzierzon.

It was not again brought before the Reichstag because it was found in the meantime that the body was not competent to deal with the internal regulations of the different German States, as this Bill would have to do. He finally stated that the Bill he now submitted, contained four sorts of provisions—the first relating to the right of keeping bees, and the property of the the bee-keeper in his colonies and swarms; the second, to police and administrative regulations with regard to the location of apiaries, and of the bee-hives brought out to the fields in the period of bloom, with fixed lines for the contravention of such regulations; thirdly, the imposition of penalties for wilful and improper destruction of strange bees, by means of poison, water, steam, etc.; and fourthly, regulations for the suppression of FOUL BROOD, which he described as a "plague which can destroy whole apiaries, not only in small localities, but in an entire province."

It will now be a matter of interest to see how this Bill fares in the Prussian Parliament; but whatever the fate of the measure may be, we have here a proof that important legislative bodies, such as that of the Kingdom of Prussia and the Imperial German Parliament, the latter representing over sixty millions of people, notwithstanding the weighty matters upon which they have to deliberate, can spare time and attention to consider the whole question of the protection and encouragement due to apiculture upon principles of State policy, while a certain duodecimo parliament sitting "in another place" appears to be so overpowered by the labor of legislating for some half million of colonies, that it cannot afford the necessary time to deliberate upon a short, useful, and, I believe, unopposed measure, intended to save a young country from the damage likely to arise from the spread of foul brood among its bees, although the Bill is so short and so simple that it might well be disposed of by any parish vestry meeting in half-an-hour.

TAXING BEES.

Are Bees Taxable in the State of Iowa?

Written for the American Bee Journal

BY EUGENE SECOR.

The query propounded by G. B. Olney, on page 620, is one which seems to puzzle not only a good many bee-keepers, but also some persons who, by viritue of their office, interpret the Revenue Laws.

The question, "Are bees taxable?" must be decided by the laws of the State where they are kept. They may be taxable in one State, and exempt in another; therefore, what I shall have to say on the subject relates only to Iowa.

If I remember rightly, this question was ably answered in these columns several years ago by Dr. Oren, but as there are undoubtedly many new subscribers, I will give my interpretation of the Iowa law. Indeed, it needs no interpretation, the statute being so plain that any one, it seems to me, ought to be able to understand it. I will quote from the Revenue Laws, and from Section 797, which is the section specifying the exemptions: "The following classes of property *are not to be taxed*, and they may be omitted from the assessments herein required." Paragraph 4 of that section reads, "Animals not hereafter specified."

Taxable property is "specified" under Section 801, and the "Animals" therein named are "horses, cattle, mules, asses, sheep and swine." That is all the law there is treating directly or indirectly on this subject, except the quotation below.

Now, one question that is likely to arise is, "Is a bee an animal?" If not, they may be classed in the "All other property, real and personal," which "is subject to taxation in the manner directed." But if bees are not animals, what are they? Webster defines the word animal thus: "An organized living being, endowed with sensation and the power of voluntary motion; and also characterized by taking its food into an internal cavity or stomach for digestion; by giving carbonic acid to the air and taking oxygen in the process of respiration; by increasing in motive power or active, aggressive force with the progress to maturity."

Bees are animals. Some try to excuse their consciences for wanting to tax bees on the ground that they are property, and ought to share their just burden of taxation. But bees are not only animals exempt, yet we seldom hear of a word of complaint regarding the others. Geese, turkeys, hens, pigeons, guineas, peacocks, *dogs, cats, tame rabbits and fish are all animals, yet the assessor never inquires after the amount of capital that we have invested in them. They are exempt under the Section above quoted.

I may open a poultry farm and invest $5,000 in fine birds, yet the stock would be exempt under the law. I may construct a carp pond and raise fish enough to supply my family, but the carp are exempt. I might start an ostrich farm and the birds would be exempt from taxation under the present law, even though they cost $1,000 apiece. The proper tools of every farmer and mechanic to the amount of $300 are exempt from taxation.

If the Legislature had intended that all the before-mentioned animals should be taxed, they would not have exempted them.

As an instance where visible property wholly escapes taxation with the sanction of law, take poultry. The census report for 1880, shows the number of all kinds in the State on June 1st of that year, to have been 8,539,714. At 20 cents each (not an extravagant estimate), the value was more than a million and a half dollars ($1,707,942). The value of the eggs produced in 1879, at 12 cents per dozen, was $3,870,471.

The number of colonies of bees in the State is not given in the census report for 1880, but the honey produced in 1879 was 1,310,138 pounds. At 12½ cents per pound, the value was $163,767, about one twenty-third part of the value of the product from poultry. We do not hear anything about taxing poultry, and I think that it is about time that they give bee-keepers a rest.

*Under a recent law, dogs are taxed, but it is a sort of a *per capita* tax, and not according to the value of the animal. Its object is to raise a fund with which to pay losses to the owners of sheep or other domestic animals, caused by dogs.

Forest City, Iowa.

LAW.

Sending Bees by Mail is Now Statutory Law.

Written for the American Bee Journal
BY C. J. ROBINSON.

On pages 581 and 582 the subject of shipping bees by mail transit is discussed with pertinency to the bee-business. Mr. A. I. Root expresses fear that the mail "department" will get down on sending queens in the mail, and again exclude them by a ruling of the postal chief. He fears that the "trial package" sent in the mail by Mr. Pratt to Mr. Doolittle "is a direct violation of our present laws." It seems that our active business friend, A. I., has not made himself conversant with "our postal laws."

Referring to our postal law, it will be seen by reference to the statutes relating to mail regulations, that Section 372 of our postal laws, approved by Congress March 3, 1886, provides that certain articles therein mentioned are mailable as "4th class matter." The 8th clause of that Act reads: "Queen-bees and their attendant bees may be sent in the mails when properly put up so as not to injure the persons of those handling the mails, nor soil the mail-bags or their contents."

Please note that it is not left with the Postmaster General in his discretionary jurisdiction to rule that queen-bees and their attendant bees must be excluded as mailable matter, as he did many years ago. Now, it is statutory law that bees are mailable matter.

Our worthy friend, A. I. Root, mentioned that he "would not blame the department for shutting down on us;" none will ever "blame the department" again for "shutting down on us," no, indeed, it *can't* do it; Congress holds the helm of the mails, and have granted "us" the right to send through the mails, queen-bees and attendant bees, without restriction as to the number of attendant bees, and the wording of the law may be construed to include five attendant bees or five million, providing the packages do not exceed 4 pounds.

The 9th clause of the same Section, 372, mentions that "Hard candies or confectionery" may be sent through the mails when properly put up. So go ahead, Messrs. Pratt and Doolittle, and if you fail to push the business, very likely our enterprising friend, Mr. A. I. Root, will dispel his doubts and fears, dry up his mournful tears, and take the lead.

Mr. Root mentioned that "Prof. Cook was instrumental in getting queens through the mails when they were once cut off (?)" I do not like to dispute, nor am I willing to rob one of glory, but when I read the assertion I was a bit surprised that Mr. Root would entertain a superstitious belief that Prof. Cook is to be credited with all the honor and glory as having accomplished what many others, equally as great and good, have done jointly. Is Gen. D. L. Adair, of Hawesville, Ky., who first took the bull (P. M. G.) by the horns, to be ignored? And who had a telling voice in framing the Section, 372? It was not Prof. Cook. Has Mr. Root forgotten that the National Bee-Keepers' Convention took up the subject and appointed a "committee" to influence the chief of the "Department" to rescind his ruling, and permit postmasters to mail bees?

I mailed the first queen and a few attendant worker-bees that ever was sent by mail transit, and I have been cognizant of the rulings and the laws relating to bees by mail. I sent that first queen to Rev. L. L. Langstroth, in the summer of 1863—I suppose he has my letters on file—and naturally I would observe what transpired concerning the business. The idea of sending bees by mail was forced upon me as a necessity. I resided 20 miles distant from an express office.

I had a hand in importing the first Italian queens that landed on this continent, that bred queen progeny. P. J. Mahan, of Philadelphia, went and bought the queens, and bred queens in his apiary, and he sent queens to me by express. I was bothered about getting them, and it occurred to me that they might be sent by mail. I wrote to Mr. Langstroth, asking his opinion in the matter. He answered, saying that he considered it not practical. I ever have a mind that prompts me independently, and I caught a black queen, put her into a cage with a few worker-bees, and put all in the mail-pouch that was borne away on a stage-coach.

A few days later I received a package, per mail, from Mr. Langstroth, containing a fine Italian queen, but she survived only an hour or so. She and the few workers were daubed, and the workers were dead. He had informed me that the bees I mailed to him were in fine condition when received. I informed him that his attempt was a failure; that the bees were daubed, and he sent me another queen which came safely.

Such was the origin of sending bees by mail. At that time Mr. Langstroth wrote me a complimentary letter, mentioning that I was fairly entitled to the credit of the invention—shipping bees by mail; also that he contemplated a new edition of his book, and took pleasure of giving me the honor of being the originator of the plan.

The mailing of bees has proved a great boon to the bee-fraternity, as it did to Mr. Langstroth, yet he has ignored me, even though he promised to do me justice. Of course I do not feel toward him as many others do. A few years ago I wrote, asking him if he remembered the matter, and put the question, whether or not he knew that I was the first who suggested the idea of sending bees by mail, and the first to put it in practice. I suspected that some upstart would claim the credit, and that "Father Langstroth" would forget it, unless I had his acknowledgement in writing. He answered my question (as I took it) rather grudgingly, mentioning, "So far as I know, you were the first to mail queen-becs." I am human, and was feeling unkindly toward him in return for his disrespect to me, so when I received the cold reply, I waxed—well, just as anybody would.

Mr. Langstroth can correct me if I am in error, for it does not depend wholly upon our statements. I feel that I have reason to remember him as treating me unfairly; hence I have criticised him not in a friendly style.

P. S.—In my article on page 586, a slight error occurred. In the second column, and last line but one, it reads, "AMERICAN BEE JOURNAL," instead of "*Q. B. J.*," as I had written in. Editor Pratt commented on one of my articles, and I aimed a joke on him, in answer to his humorous mention of "beauty." The notion is current that "beauty" is—in women and bees—an indication of feebleness, but none attempt to explain or offer logical reasons in support of such a doctrine.

Richfield, N. Y.

[Mr. Robinson misunderstood Mr. A. I. Root's statement. The latter referred to the year 1879, when Prof. Cook, D. A. Jones, and T. G. Newman were appointed a committee to try to get "queen-bees and their attendants re-admitted to the mails," from which they had been excluded when framing a new law.

Mr. Robinson refers to the original time of admitting bees to the mails, in 1863—fifteen years prior to the excellent work done by Prof. Cook, President Willitts, and others, in re-admitting queen-bees to the mails.

We are sorry that Mr. C. J. Robinson should have any unfriendly feelings towards Father Langstroth—than whom no man lives who is more honorable and just, as well as anxious to give every man his just due.—ED.]

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Oct. 23, 24.—Union, at Mt. Sterling, Ills. J. M. Hambaugh, Sec., Spring, Ills.

Dec. 4-6.—International, at Brantford, Ont., Canada. R. F. Holtermann, Sec., Romney, Ont.

Dec. 16, 17.—Northern Illinois, at Rockford, Ills. D. A. Fuller, Sec., Cherry Valley, Ills.

1890.

May 2.—Susquehanna Co., at Hopbottom, Pa. H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Best Honey from Golden-God.—Chas. E. Dow, Lawrence, Mass., on Oct. 7, 1889, says:

With me the golden-rod is a valuable honey-plant—the best honey that I have taken this year is from it, and was taken in September. It is very thick, and it is hard to extract the combs clean. Let a person take a sprig of the flower, and compare its odor with the flavor of the honey, and he will be surprised at the similarity. I will send you a sample in a few days. Mrs. Dow and I say, let the golden-rod be the national flower.

Bees Did Poorly.—J. M. McDaniel, Peoria, Texas, on Oct. 1, says:

Bees are doing poorly here. We have no basswood or white clover in this part of the country, which are the main honey-plants in many places, and we have nothing to take their places; still I shall keep bees, as I like to work with them. Bees do well here in the spring, and sometimes late in the fall, but often in May and June there is a dearth of honey-plants.

An Opinion of Golden-Rod.—D. C. Leach, Walton, Mich., on Oct. 4, 1889, writes:

I am glad that Mr. Harris (page 636) has asked for an "expression of opinion as to the value of golden-rod as a honey-producer." I also had thought of calling for such an expression. Golden-rod abounds in this vicinity; thousands of acres of pine plains and "stump lands" are covered with it. It blooms in July and lasts, sometimes, until Oct. 1. I have been watching this year, to see how it was treated by the bees; for weeks I did not see a bee on it, although on the watch for them. About Sept. 1, I noticed that my bees were carrying in honey rapidly, and upon examination, I became satisfied that it was gathered from golden-rod. In some localities I found bees quite plentiful on it, and at evening there was about the hives an odor like, but much stronger than, that yielded by the flower of the golden-rod. This continued for about two weeks, and then ceased; since that time no honey has been gathered. Field and forest flowers are good, and the only place that I can find bees at work at all, at this date, is on a small patch of borage in my garden. The borage has been in bloom since early in July, and is still sought by the bees on every pleasant day, as eagerly as ever.

Results of the Season.—G. G. McCoy, Zumbrota, Minn., on Oct. 4, 1889, says:

I started last spring with 3 colonies, and have 11 now—an increase of 8 colonies. I have taken off 280 pounds of comb honey. Our fair was not a great success, on account of the cold weather.

A Worthless Weed is Golden-Rod.—Frank A. Eaton, Bluffton, O., on Oct. 3, 1889, writes:

I notice on page 636 that an expression is desired in regard to golden-rod as a honey-plant. My experience is, that it is one of the most worthless weeds that grows in this part of Ohio. I have never seen a pound of honey from it, and in rare instances I have seen a few single bees at work on it. It grows quite profuse here along the roadsides and in waste-places. I speak of the variety as illustrated in Cook's Manual, and most generally known. It is very pretty, and quite fragrant, which is the most that can be said of it.

Golden-Rod, Hives, etc.—Mr. Daniel E. Robbins, of Payson, Ills., on Oct. 3, 1889, writes:

I have watched golden-rod carefully every year since getting bees in the spring of 1884, and the bees in this locality do not work on it to any great extent; the varieties that we have here are practically worthless as honey-producing plants. Mr. Alley, in his "Handy-Book," page 173, says of golden-rod: "That which yields the honey, grows about 18 inches in height." One sort grows about 4 feet in height. Our honey crop is rather less than an average, the fall flow being very light. I think that much depends upon the location, as to what plants are valuable, what size of hive to use, what system of management is best, and whether the object is to produce comb or extracted honey.

Honey from Golden-Rod.—W. P. Henderson, of Murfeesboro, Tenn., on Oct. 4, 1889, writes:

Yes, the bees get honey from golden-rod in our locality. Since the enquiry of Mr. Secor, I have noticed particularly that my bees do visit this wild flower in our old fields. On Sept. 20, my 100 colonies (nuclei and full colonies) I do not believe had an average of 2 pounds of honey to the hive; now, Oct. 4, they are heavy—hives full—and the queens are restricted to a small space. Golden-rod (which I vote for, for the national flower) and tangle-foot, one of the asters, are the plants that the bees are gathering from. Nothing else is in bloom except cotton, from which they now gather only pollen. Honey from our fall bloom, however, candies long before the clover honey gathered last May, and is a poor winter food for the bees, as they only utilize about half of it.

A Fair Season.—Allen Latham, Cambridge, Mass., on Sept., 25, 1889, says:

This has been a fair season. Little honey was obtained from apple-blossoms, as it was so hot that only four days of bloom were obtained. Clover did not do as well as it should. Buckwheat honey is what filled the hives. I have several colonies, each of which has stored from 50 to 60 pounds of good buckwheat honey. Unless this wet weather stops, little or no fall honey will be obtained. I have sold all my clover honey at 25 cents per pound.

A Splendid Honey-Plant is Golden-Rod.—Benjamin Franklin, Franklinton, N. Y., on Oct. 6, 1889, writes:

I see that some claim that golden-rod is not much of a honey-plant. I cannot say how it is in other sections, but I know by the experience of the past twenty years, that it is a splendid honey-plant here. There used to be a pond covering 100 acres or more, that has grown up to golden-rod; I get a good deal of honey from that after buckwheat is out of bloom. This fall, while the bees were working on buckwheat, any one passing the hives could smell the buckwheat honey; when they commenced working on the golden-rod, one could smell that. It is splendid honey.

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Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

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The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
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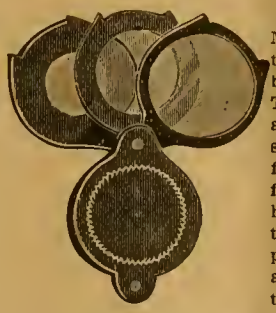

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Now, in order to pay our friends to work for our JOURNALS, we have gotten up special editions of Mr. Doolittle's "Scientific Queen-Rearing," (with Appendix), and Dr. Miller's "Year Among the Bees," bound with nice paper covers, and will *present* a copy of either book to any one who will send us two **new** subscribers for either of our JOURNALS (the BEE JOURNAL, weekly, or the HOME JOURNAL, monthly).

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A Handsome Present.—As the convention season is now on hand, we will make every subscriber this good offer: Go and call on your neighbor who keeps bees and ought to take the BEE JOURNAL. Get his subscription and one dollar for a year; send it to us, and we will *present* you a copy of the Convention Hand-Book, by mail, postpaid, for your trouble. Here is a grand chance for all to get a valuable book without costing them a cent!

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New Posters for the AMERICAN BEE JOURNAL, printed in two colors, have just been printed, and will be sent free to all who can use them. They are very handsome, and will "set off" an exhibit at Fairs. It will tell Bee-Keepers how to subscribe, for "Subscriptions Received Here" is quite prominent at the bottom.

We will also send sample copies of the BEE JOURNAL, for use at Fairs, if notified a week or ten days in advance where to send them.

Prang's National Flower is the title of a beautiful pamphlet which contains two colored plates of the two most popular candidates for selection as the National Flower of America. It also has two poems, and a postal card addressed to Messrs. L. Prang & Co., Boston, Mass., with a vote to be filled up for the selection of a National flower. The pamphlet costs 25 cents, and can be obtained at this office.

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Oct. 2. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—It is arriving freely and we note some little accumulation, but all will be wanted later on. White clover 1-lbs., according to style of package and appearance, 13@15c. Dark 1-lbs., 10@11c.; 2-lbs., 8@9c. Extracted is in light demand, values ranging from 6@8c., depending upon the style of package, quality, etc.
BEESWAX.—25c.
Sep. 21. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—It is selling slowly yet, but with colder weather we look for more active trade. Market is well supplied with honey, it being in many hands. In lots it cannot be sold at over 13@14c., and in cases even less, if not in first-class condition. Extracted, 6@8c; white clover and basswood, in kegs and barrels, 7c.
BEESWAX.—25c. R. A. BURNETT.
Sep. 10. 161 South Water St.

ST. LOUIS.

HONEY.—We quote: Choice white clover comb, 12@12½c.; fair, 10@11c.; dark, 7@8c. Extracted, in barrels, 5@5¼c.; in cans, 6@6½c.
BEESWAX.—24c. for prime.
Aug. 21. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—It is in good demand. We quote: Fancy white 1-lbs., 15@16c.; 2-lbs., 13@14c. Fair white 1-lbs., 13@14c.; 2-lbs., 11@12c. Buckwheat 1-lbs 10@11c.; 2-lbs., 9½@10c. Extracted, basswood and clover, 8c.; orange blossom, 8½c.; buckwheat, 6c.; California, 7½c.; Southern, 72½c. per gallon.
HILDRETH BROS. & SEGELKEN,
Oct. 11. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—It is moving fairly well at 16@17c., with occasionally an extra fancy lot at 18c. Some large retailers secured quite a quantity of white, averaging about 13@14 ounces to the comb, and are selling it at 15c. per comb, tending to demoralize other retailers, as they want to compete, as the large retailers have filled their windows with the honey, and marked it very prominently. Two-lb. combs are a little scarce, at 16@17c. Extracted, 8@9c.
BEESWAX.—None on hand.
Oct. 10. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—There is a quiet but steady demand for choice white comb, at 15@16c. dark is slow sale at 10@12c. Demand from manufacturers is fair for extracted honey, and it is good for best qualities for tables use.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Oct. 12. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—Receipts are very light, and demand is increasing. We quote: White 1-lbs. 13@14c.; dark, 10@12c.; white 2-lbs. 12@13c.; dark. 10@12c. Extracted, white, 7@8c.; dark, 6c.
BEESWAX.—None in market.
Oct. 12. CLEMONS, CLOON & CO., cor 4th & Walnut.

MILWAUKEE.

HONEY.—New crop is coming in and of very fine quality. Demand is fair and values easy. Choice white 1-lbs., 14@15c.; 2nd quality 1-lbs., 1½@14c.; old 1-lbs., 10@12c. Extracted, white, in tins and pails, 8@8½c.; in barrels and kegs, 7@8c.
BEESWAX.—22@25c.
Sep. 5. A. V. BISHOP, 142 W. Water St.

Convention Notices.

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Romney, Ont., Canada.

☞ The Union Bee-Keepers' Society will meet in Mount Sterling, Brown Co., Ills., on Oct. 23 and 24, 1889. The prospects are very flattering for a grand time, and all who are interested in bees or honey are cordially invited to attend.
J. M. HAMBAUGH, *Sec.*

☞ The Northern Illinois Bee-Keepers' Association will hold its annual meeting in the Supervisors' Room of the Court House, at Rockford, Ills., on Dec. 16 and 17, 1889. D. A. FULLER, *Sec.*

Advertisements.

HONEY

WE are now ready to receive shipments of **HONEY**, and would be pleased to open correspondence. Liberal advances made on consignments. Let us hear from you, as we can render prompt returns at the top market values. Reference on file with the American Bee Journal. **S. T. FISH & CO.,**
39A10t 189 So. Water St., CHICAGO, ILL.
Mention the American Bee Journal.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to
CHARLES F. MUTH & SON,
Cor. Freeman & Central Aves., CINCINNATI, O.
P. S.—Send 10c. for Practical Hints to Bee-Keepers
Mention the American Bee Journal.

BEE-KEEPERS,

TAKE NOTICE!

WE will allow a **heavy discount** on the Orders received this **Fall** and **Winter.** Estimates furnished, and correspondence solicited. New **Price-List** ready Dec. 1st,

A. F. STAUFFER & CO.,
40Etf STERLING, Whiteside Co., ILL.
Mention the American Bee Journal.

THE BEE-KEEPERS' REVIEW

A **50-CENT MONTHLY** that gives the cream of Apicultural Literature; points out errors and fallacious ideas; and it gives, each month, the views of leading bee-keepers upon some special topic. **Three Samples Free.**

W. Z. HUTCHINSON,
26Etf 613 Wood St., FLINT, MICHIGAN.
Mention the American Bee Journal.

EXTRACTED HONEY FOR SALE.

WE have a Large Quantity of CHOICE WHITE **EXTRACTED HONEY** For Sale, in kegs holding about **200 pounds** each, which we will deliver on board the cars at **8 Cents** per pound. Orders are solicited.

THOS. G. NEWMAN & SON,
623 & 925 West Madison-Street. - CHICAGO, ILLS.

No. 1, $2.00...No. 2, $1.75...No. 3, $1.50.
No. 4, 1.25...No. 5, 1.00...No. 6, .65.

Knife, $1.15.

On receipt of the above price,

SMOKERS AND KNIVES

will be sent postpaid. Descriptive Circulars will be sent on receipt of request card.

BINGHAM & HETHERINGTON SMOKERS are staple tools, and have been used **Ten Years** without complaint, and are the only stove-wood, clear-smoke Bee-Smokers. No giving out. No fussing. No going out. No vexation.
Address,

BINGHAM & HETHERINGTON,
32Atf ABRONIA, Allegan Co., MICH.

RERUM COGNOSCERE CAUSAS,

TO know the Causes of Things is the key to Success in any Industry. If you wish to succeed in the **Bee-Business,** you must read and become acquainted with the most Successful Methods of Bee-Management and Honey-Production.

LANGSTROTH'S WORK,

REVISED BY DADANT,

Contains the result of **practical experience** with Bees. It gives the Physiology of the Bee, with numerous **Quotations** from the latest Scientific Writers, the Description of the **best Hives,** Directions for the Proper Management and Handling of Bees; the most **Practical Methods of Queen-Rearing, Swarming** (Natural and Artificial), with controlling methods; instructions on Establishing Apiaries, Transferring, Shipping, Mailing, Feeding, Wintering; the best methods of producing **Comb and Extracted Honey,** the Handling an Harvesting of Honey, the Making of Comb Foundation, &c., &c.

The instructions for the **Rendering of Beeswax** are alone worth the price of the Book, to many bee-keepers who waste a part of their Wax in Rendering it.

This Book, "the most complete ever published," is shortly to be published in the French, Italian and German Languages, by Practical European Apiarists. It is highly recommended by all publishers of Bee-Literature in the Old World as well as in the New.

Cloth Binding, 550 Pages, 199 Engravings, 19 Full-Page Plates. Gilt front and back. This book is an Ornament to any Library.

Price: By Express, **$1.85.** By Mail, prepaid, **$2.00.** Special prices to Dealers who wish to advertise it in their Circulars.

☞ We also offer for Sale,

40,000 Lbs. of Honey

of our Crop of 1889;

25 Tons of Comb Foundation

Smokers, Bee-Veils of Imported Material, &c. Send for Circular. Address,

CHAS. DADANT & SON,
HAMILTON, Hancock Co., ILLS.

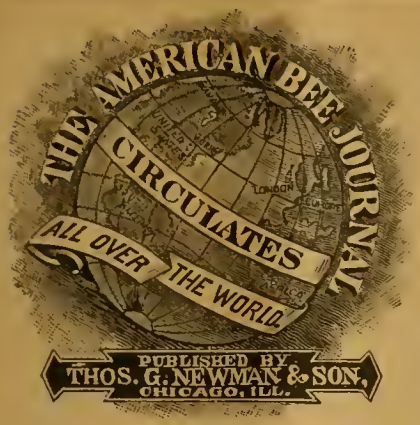
PRICES REDUCED.

UNTESTED QUEENS, 65 cents.—10 for $6.00. Select Tested, $1.50. One and 2 cent Stamps taken when Money Orders cannot be had. Make Money Orders payable at Nicholasville. Can send by Return Mail.

July 1st, 1889. **J. T. WILSON,**
LITTLE HICKMAN, Jessamine Co., KY
28A2t—30Etf

Send 75 Cents for my Book, entitled—"A Year among the Bees;"—114 pages, cloth bound. Address,

DR. C. C. MILLER,
20Atf MARENGO, ILLS.



THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Oct. 26, 1889. No. 43.

EDITORIAL BUZZINGS.

About 30 Per Cent. more colonies of bees will be put into winter quarters this year than last. The fall honey crop was about 40 per cent. of an average crop; but the summer crop of honey "hung along" until the end of July—a month later than usual.

Loose Expressions often do harm, as well as cause much annoyance to those who try to "call things by their right names." In an article recently written by an apiarist for a metropolitan weekly we notice the following incorrect expression: "The safest food (for bees) is honey made from cane sugar." The writer well knows that honey is *never* made from cane sugar, nor, indeed, is it *made* at all; it is pure nectar gathered from the flowers! But some smart scribbler may now be found to claim that "honey is made from cane sugar," and to prove his claim he will quote from an article in the *Times* the very words desired to substantiate his assertion. That these words were thoughtlessly written we grant, but the harm done is just the same as though they were deliberate and intentional.

We insist upon "calling things by their right names," and if writers will not do it in their manuscripts, we invariably make the corrections in this office. But when they write to farm and miscellaneous papers, such corrections are not made, and an injury is there done to our pursuit.

A Representative Society Lady whose picture is given in this week's *Frank Leslie's Illustrated Newspaper*, is Mrs. Elliott Roosevelt, and her fair face is most pleasing. Pictures of the Visit of the Veiled Prophet to St. Louis present many grotesque and suggestive sketches.

The Honey Almanac will be published about the first of November, as we have received sufficient responses to warrant us in issuing it. Orders may now be sent in with copy for the Honey-Producers' Card. We will ship them as soon as issued. Prices: $2.50 per 100; 500 copies for $10.00; 1,000 copies for $15.00, delivered at the freight or express office here. Please read the announcement on page 629, and see if you do not need some. We are getting an excellent amount of new material for it, in the shape of recipes for cooking and medicinal applications. It will be a very nice and attractive Annual.

Mr. A. F. Randall, of Randalia, Iowa, writes thus about the Honey Almanac:

Now you are on the right track in regard to advertising honey and recipes for using honey. You can count on me now for 100, and if I can use more I will order them later. The recipes for making cakes and drinkables I think will help us all to sell our honey. Please to give H. O. Kruschke thanks for me.

Mr. Allen Pringle made an exhibit at the Lennox County Fair, Ontario, and the Nappanee *Beaver* makes this note concerning it:

Mr. Allen Pringle had erected, in his usual place, a pyramid of honey, which was pronounced by all to be equal to anything seen at the Industrial Exhibition, Toronto. He had several new styles of bottles for extracted honey, which set off his display to excellent advantage. The comb honey was of a superior quality.

Dr. S. P. May, Superintendent of the Mechanics' Institutes and Art Schools of Ontario, who is at present making a tour of inspection, paid Nappanee a visit. He visited the agricultural fair, and expressed himself pleased with the exhibit, especially the display of honey by Mr. Allen Pringle. The Doctor is an experienced man at exhibitions, having represented Ontario at the Centennial, and the Dominion at the Paris Exhibition, so that his commendation is worth something.

The Farm Journal, Philadelphia, Pa., has the largest circulation of any agricultural periodical in the world—150,000. It is now in its 13th volume, and is a good, practical Monthly.

By special contract we have secured terms by which we can offer the *Farm Journal* and either the AMERICAN BEE JOURNAL or the ILLUSTRATED HOME JOURNAL from now until Dec. 31, 1890, for $1.20.

Or, we will *give it free* for one year to any one who will send us *one new* subscriber for either of our Journals with $1.00 (the subscription price).

This grand offer should bring us thousands of responses at once.

Miss Gertrude Gibbs reported the late Bee-Convention in this city for the *Farmers' Review*. She is a smart young lady.

To Ripen Honey is very essential, either before it is taken from the hives or after it is removed. Which of the methods is the better one, is a question that all are not agreed upon. One of those in attendance at the Ontario Bee-Convention remarks thus:

I have said in conversation and through the press, that if there was any one thing that I knew—if one thing I could cordially recommend—if one item of advice I could give with pleasure, it was: Do not extract honey until it is ripe. And yet, strange as it may seem, there are men who know much more about bees than I do, who say that it is not necessary—that honey can be ripened after it is extracted. I cannot account for this, except on the principle that some men lack ability to judge both flavor and texture.

We hardly think the last sentence is a charitable one. Many of those who advocate the ripening of honey after it is taken from the hives are apiarists of excellent ability, and fully able "to judge both flavor and texture." That honey must be ripened is a fact—the best way to do it is only in dispute.

Bees and Grapes.—A correspondent in the *Indiana Farmer* closed a letter a few week's ago by saying: "Bees are damaging the grapes." Another correspondent replies to it with these unanswerable facts in this week's *Farmer*:

In the summer of 1887 it was quite dry in this section, during the time of ripening of our grapes; so much so that bees were not working any. I had some 40 colonies of bees, mostly setting in the shade of grape vines—all near them, and the grapes matured without a single instance of the bees disturbing them, that was seen. Then in 1888 the same thing was repeated—only the bees were starving for something to eat, the hives being nearly empty—some absolutely so, so far as I could see. I thought I would have to feed or lose all. Again we had a most beautiful crop of grapes; in many instances ripened on the hive, some bunches remaining until the grapes dropped off, and not on a single grape did I see bees working, and I looked carefully.

If bees will not work on grapes at such a time, when will they?

There is one of two things true in my opinion, grapes either crack, or some other insect opens them before the bees will disturb them, just as they do the apple, and some other fruits. After being opened they will likely work on them, but if not opened, I think they will starve first, not because they would not, but because they could not break the skin.

I. R. Good has moved 18 miles, to Vawter Park, Ind., where he intends to start a Carniolan apiary. His son will continue the Italian apiary at Nappanee, his old address.

This is what our friends say about the *Illustrated Home Journal*:

Rev. Stephen Roose, of Maiden Rock, Wis., states his opinion in these words: "The ILLUSTRATED HOME JOURNAL is one of the handsomest and most interesting magazines for the family that I ever saw. 'It is rich and racy.'"

Mrs. J. N. Heater, of Columbus, Nebr., says: "The ILLUSTRATED HOME JOURNAL is just such a magazine as I have been wanting to take for a long time, and I appreciate it. I wish it success."

Two Bee-Periodicals have very strongly condemned the sending of "Bees by the Pound" through the mails, viz: *Gleanings* and the *Apiculturist*. The latter says:

By the time Brother Pratt gets his petition in, requesting the Postmaster General to permit such a thing, other petitions will be sent in strongly protesting against it. I will do my best to upset and defeat it.

The reason given for this opposition is, that though Messrs. Pratt and Doolittle may be careful enough to pack such bees so that they may go safely, many will be so careless in this particular, that some employes of the Postal Department will get stung, and as a result, all queens, and bees, too, will be excluded from the mails.

This "point is well taken," and we hope the matter will be dropped *at once*.

To present petitions and counter petitions on this matter—all from bee-keepers—would be very detrimental to our interest as a body. Whenever we want anything like that, the matter should come with the general endorsement of the craft. The "argument" might bring up points that would not be to the advantage of the pursuit.

Besides, the points to be gained are so very insignificant—only a few dimes would be saved any way, and it would accommodate only a very few individuals.

Mr. Root sells more "bees by the pound" than any one else, and he is opposed to the use of the mails for sending them out. Our advice, therefore, is to let the matter drop, for it is an infringement of the law as it stands, and we ought not to risk any right we now have, by asking for others of a doubtful nature, which are not generally desired.

We Propose to all who subscribe now for 1890, to *give* them all the rest of the numbers of this year *free*—so the sooner they subscribe, the more they will get for their money.

Now, in order to pay our friends to work for our JOURNALS, we have gotten up special editions of Mr. Doolittle's "Scientific Queen-Rearing," (with Appendix), and Dr. Miller's "Year Among the Bees," bound with nice paper covers, and will *present* a copy of either book to any one who will send us two **new** subscribers for either of our JOURNALS (the BEE JOURNAL, weekly, or the HOME JOURNAL, monthly).

These editions are not for sale, but are gotten up specially for premiums for getting new subscribers. They are nicely printed, and will be sent *free* of postage, as pay for work to be done for our JOURNALS. Clubs need not be located at one post-office, and may contain one "Bee Journal" and one "Home Journal" to the same or different addresses; or both may be for either JOURNAL, as may be desired. Dickens or Waverley may be obtained for each subscriber in this club as offered on the last page of this JOURNAL.

Subscribers who do not receive this paper promptly, will please notify us at once.

QUERIES and REPLIES.

Keeping the Bees in the Hive, When Cellaring Them.

Written for the American Bee Journal

Query 663.—What is the best plan to keep the bees in, while moving them into the cellar? I find if I put wire-screen over the entrance, it makes the bees cross; and when I get them in, and arranged, and begin to remove the wire, they rush out, ready for a fuss.—C. W.

A handful of earth, or sawdust, or a wet rag.—R. L. TAYLOR.

Place a wet cloth over the entrance, as Dr. Miller advises in his excellent book.—A. J. COOK.

Move them carefully, when cool or cold, and, if possible, after dark.—A. B. MASON

Put them on a spring wheelbarrow, and move them so carefully that they do not know that they have been disturbed.—G. M. DOOLITTLE.

Put them in during a cool time, handle them carefully, and leave the entrances open.—EUGENE SECOR.

Close the entrance with old cloths, or rags, and at night after the bees become quiet, remove the cloths quietly.—MRS. L. HARRISON.

Wait until a cold snap makes them quiet. You can then get them put to sleep before they wake up!—J. M. SHUCK.

Do not remove the wire-cloth from the entrance until the bees quiet down—say at night—J. P. H. BROWN.

Take them in on a cold day. Have the cellar dark, and use a little smoke, if necessary. Use a lantern when light is needed.—DADANT & SON.

When moving bees about my apiary, I simply put a block of wood against the entrance, and leave it there until the bees get quiet.—G. W. DEMAREE.

Have the cellar dark; put a pine strip over the entrance, and give no jars when carrying. Remove the strip when permanently located.—J. M. HAMBAUGH.

If the weather is cool, and the hives are handled carefully, they do not need to be confined. If wire-screens are used, leave them on until the bees become perfectly quiet.—M. MAHIN.

I find that a piece of board laid over over the entrance is the best thing that I can use. Leave it on for a short time, until they become quiet, and you will have no trouble.—H. D. CUTTING.

I do not shut them in, but take them when they are quiet, and then do not stir them up. If I want to shut any in, I lay at the entrance a rag or cloth *dripping wet*. When this is taken away, in the cellar, they do not rush out, as when fastened in by anything dry. Have the cloth *very* wet.—C. C. MILLER.

Carry the bees in when it is a little cool, or after dark. I never put anything over the entrances, and they do not come out, unless roughly handled.—G. L. TINKER.

The best plan to keep the bees in the hive while carrying them into the cellar, is to carry them *quietly*, not striking them against anything, nor jarring them in any way. Do not try to confine them within the hive with wire-screen, nor anything of the kind.—MAHALA B. CHADDOCK.

Stop up the entrance with a wad of grass, and do not open them for a few hours after they are carried in, when they will quiet down, and the grass can be easily removed.—C.H. DIBBERN.

Put your bees in the cellar when the temperature is such that they are the quietest. Lift the hives carefully so as not to jar them. I once put nearly 40 colonies in the bee-house, and only two or three ever had the least suspicion that they had been removed—I did it so quietly. The bee-house floor was covered with sawdust. The shelves which the hives were placed on, also had a two-inch layer of sawdust. It takes nerve and muscle to do it, but it pays.—JAMES HEDDON.

I have a ½-inch stick, just the length of the entrance, which is used for this purpose. When wishing to imprison the little "rebels," I step up to the front of the hive, and with a faint show of smoke, drive in the outside guards, the entrance-blocks are then removed, and this ½-inch stick quickly slipped in their place. This holds them securely, and can be taken away without causing a single bee to leave the hive. It is far better for this purpose than wire. But, if the bees were to be confined to the hive for any length of time, some arrangement for ventilation should be made.—WILL M. BARNUM.

If the bees are taken into the cellar after the weather becomes *cold*, they will need nothing to keep them in. If such is deemed necessary, however, a *very wet cloth* put over the entrance will not only keep them in, but it will have a soothing effect when it is removed. It is better than sawdust, wire-cloth or grass.—THE EDITOR.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

CORRESPONDENCE.

CUBA.

Golden-Rod — Honey-Extractor for a Large Apiary, etc.

Written for the American Bee Journal
BY O. O. POPPLETON.

On page 585, Mr. Secor asks some questions about golden-rod. I used to think as he does, but longer observations showed me that there were different varieties of it, which varied greatly in their value to the honey-producer; and these again differed greatly in different seasons. Possibly certain varieties yield on some kinds of soils, and others on other soils. This would make an interesting point for botanists to observe.

Mr. S. also speaks of the value of the yellow-ray, or wild sun-flowers, which are so common in some of the Western States. At my old location, some 80 miles east from Mr. Secor's, there were two varieties of these flowers, one of much, the other of no, value. The difference between the two varieties was first pointed out to me by Mr. George Stocks, of Nashua, Iowa.

The valuable kind was very abundant on the Cedar river, a few miles west of my place, but it was very scarce near me. Soil on the Cedar river was drier and sandier than near where I was. It might be well for some one living where they grow, to identify and describe the two species.

While the most of the readers are probably getting their bees ready at this time, for their winter's rest, we, here in Cuba, are nearing the commencement of our annual honey harvest.

Improving the Honey-Extractor.

In replies to Query 560, on page 534, Mr. Heddon says: "So far as I know, we never had a half-way-decent honey-extractor; that is, one at all worthy of the use of a bee-keeper who produces tons of extracted honey. The best of our present machines are just good enough for amateur bee-keepers, who have from 3 to 10 colonies of bees."

This is a strong statement, but not so far from the truth as many might think, at first glance. This apiary yielded fully 25 tons of honey last winter, and the ordinary two or four frame machines would be a nuisance here; but the one that we do use, is probably as far from Mr. Heddon's characterization, as anything yet manufactured.

In ordering the machine from the owner of the Stanley patent, I mentioned certain points that we insisted upon, leaving the details to him. I required a six-frame Stanley reversible extractor, built very strong and substantial, with overhand gearing, the handle being attached to a horizontal rod extending outside of the can, and so geared as to give 1½ revolutions of the baskets to one of the handle; to be furnished with a serviceable brake, and permitting of being oiled without removing any part of the machine.

As this was the first machine of the kind ever made, new patterns had to be made for all the castings. We did not get it set up until almost the close of the season, but judging from the few thousand pounds that we extracted with it, I think that we shall like it much better than I expected we would when ordering it.

It is unquestionably far superior to anything I have ever yet seen or used, but is, so far as I know, the only one of the kind yet manufactured. If any one has any better extractor, let him describe it, as we want the best.

Havana, Cuba.

BAY STATE FAIR.

The Exhibits of Bees and Honey at the Bay State Fair.

Written for the American Bee Journal
BY ALLEN LATHAM.

Yesterday I paid a visit to the Bay State Fair, held in Boston, and the exhibit in the bee and honey department, as a whole, was poor for even an Eastern State, though individual exhibits were creditable. The total amount of honey exhibited would not exceed 300 pounds; of beeswax, not more than 50; and only one full colony of bees. The premiums were fitly awarded. These were sufficiently large to call for a better exhibit.

The first premium on clover honey was taken by Miss M. A. Douglas, of Shoreham, Vt.; the 2nd, by D. W. Clement, who also took the 1st premium on light fall honey. The 1st premium on buckwheat honey was taken by E. N. Fisher, of Ludlow, Mass.; also, the 1st on beeswax and black bees.

Henry Alley took the 1st prize on Italians, and the 2nd on black bees; also 2nd premium on beeswax.

I saw some of the exhibitors, and had considerable talk with them. From all, I heard the cry of "poor season," which will perhaps account for the poor exhibit. One of the exhibitors wished to visit some friends in this part of the State, and so brought on some honey and bees. He took enough prizes to pay his expenses.

Cambridge, Mass.

BEES IN WINTER.

Best Way to Winter Bees—The Different Systems.

Written for the New York Tribune
BY PROF. A. J. COOK.

Bees are natives of a warm climate, where they can fly nearly or quite every week of the year. In nature, bees can retain their fecal matter while in the hive, and never void their intestines except as they fly forth. As with well bred and trained cats and dogs, bees will not soil their domiciles. Thus, in case of long confinement, as is often necessary in our Northern climates, they become diseased.

In their native home, the only provision to insure safe wintering—bating accident—is enough good food. This is true in our Southern States, and in California and Oregon to-day. There, bee-keepers are only watchful that their bees have sufficient good winter stores, and they are without anxiety as to result.

Most insects in our Northern climate pass the winter in a state of profound hibernation; they eat nothing, move not at all, and are seemingly without life, but not so with the honey-bees. They are ever and anon moving about the hive and eating the little that their slight exercise makes necessary. Open a hive in the dead of winter, and even though it rests all unprotected on the summer stand, we will find the bees move and show that they are not dead, nor even sleeping. Thus we easily understand that with the naturally neat habits of bees, with our long, cold winters, and their exceptional habits of activity and feeding, produced doubtless by their long existence in a warm climate, it becomes no easy matter to carry them safely through the winter.

Two things are necessary to this end in our rigorous Northern climate, viz: 25 or 30 pounds of good food per colony, and such protection as will make the severe cold and long confinement endurable.

Honey is a very indefinite term, as bees collect nectar—the source of honey—from many and very widely different locations. That all honey is safe food for winter is not true. The safest food is that made from cane-sugar syrup. Often honey is worth more in the market than is such sugar, at which times it will pay well to extract, and sell the honey, and feed syrup to the bees.

The sugar must be only the best cane-sugar; glucose is not relished by the bees, and, as has been proved often, is fatal as a winter food. Usually, however, honey collected from flowers

is safe to give the bees for winter. Some bee-keepers object to autumn honey for wintering; I have tried such repeatedly, and with the best results. I think that the safe rule is this: Give to bees any honey that you would relish on your table.

Sometimes the bees gather nectar which is secreted by various insects; some of this is rank and unwholesome; it smells and tastes bad. Such honey is fit neither for table nor bees, and if used for wintering, it will almost surely bring disaster. Such honey should always be sold for manufacturing purposes, where it often serves as well as any.

Temperature of Bees in Winter.

The matter of temperature is not so easily provided for. There are three ways to arrange bees so that they may not succumb to our most severe winters. Messrs. Root, Hilton and Poppleton advocate chaff hives. These are double-walled hives with 4 inches of chaff or dry sawdust between the walls. The objections to these are, that they are expensive, heavy to handle, and do not always save the bees. If they would always suceeed, as their advocates claim will be the case when rightly managed, they would have much to recommend them.

Messrs. Bingham and Southard have been signally successful by packing. They place a large box about the hive, and fill in with chaff or sawdust, always arranging so that the bees can fly whenever the weather permits. If so successful (and I see no reason why it should not be) I should, on the ground of cheapness and convenience, perfer this to chaff hives. Mr. Bingham places six or eight hives close together, and makes one box do for all.

After trying all the ways, I much prefer cellar wintering. I think that the large majority of Canadian and American bee-keepers in our Northern States agree with me. The only requisites for a good cellar are, that it should be dark, well ventilated, and should preserve a uniform temperature between 38° and 45°, Fahr. It would be best if the temperature could be kept uniformly at 45°. This keeps the bees very quiet, so that they eat and move but little, and so remain in good health even from October to April.

If the cellar becomes too cold or too warm, the bees stir more, eat more, and very likely become diarrhetic, and come out in the spring weak, if alive. It is easier, of course, to keep a cellar at the right temperature if wholly under ground. If found troublesome to preserve the temperature at the proper point, as may be true in very cold or in rather mild regions, we can secure this result by sub-earth ventilation, by artificial heat, or by having a large cistern in the cellar.

I have sub-earth ventilation. A long, 8-inch pipe runs from the bottom of the cellar at least 6 feet underground for many rods before it comes to the surface. A chimney or flue extends from the bottom of the cellar to some feet above the top of the house. By aid of fires in the house above, this flue is kept warm. Thus the cellar is kept warm and well ventilated. The air drawn in through this sub-earth pipe comes into the cellar warmed, and my object is secured. This arrangement is common in this part of the country, and works well. This however, is expensive, and better not be adopted unless found to be absolutely necessary.

I know of several who have wintered bees successfully for years, just in a common cellar. I know of others who control the temperature admirably by means of a large cistern full of water. Dr. C. C. Miller, of Illinois, keeps a small coal-stove in his cellar, by which he keeps the temperature to his liking. I feel certain that with a good cellar and proper care to secure good food, we may winter bees without loss.

Agricultural College, Mich.

GOLDEN-ROD.

The Plant as a Family Yields but Little Honey.

Written for the American Bee Journal

BY R. DART.

The golden-rod family is large, and grows in great quantities in the new States and Territories in the West. It is wild, and stands no cultivation.

Mr. Eugene Secor, of Iowa, tells the truth when he says that there is a yellow aster in bloom at the same time with the golden-rod. On river banks and mud lakes this aster grows 5 feet high; on wet marshes it grows close to the water a few inches above, and is of the dwarf species.

I have been a bee-keeper forty years, and have tried to know what my bees get their honey from during the season. The first twenty years of my life were spent in the wild-oak openings of Wisconsin. I was a bee-hunter, and have taken thousands of pounds of honey from bee-trees. Many of these trees were located close by these large marshes covered with this aster, and when the hollow in the tree was large enough to hold the honey, I have taken large quantities of this yellow honey. The quality is very fine.

Other trees located miles away, and surrounded by golden-rod, when cut, I would find but few pounds of fall honey. My long experience as a bee-keeper and bee-hunter has shown me that the golden-rod family yields but small amounts of honey.

If I were asked to name the flower that was the best friend to the bee-keeper, taking one year with another, for the Northern and Western States, I should say, the "little, white, Dutch clover."

Ripon, Wis.

MIGRATION.

Sending Bees to the South to be Wintered.

Written for the American Bee Journal

BY JOHN CRAYCRAFT.

I have read Mr. Doolittle's article on page 581, concerning the transmission of bees by the pound through the mails, and I am pleased to know that such a thing can be done; but I fear that the Postal Rules may be drawn down on our already especially-favored traffic in queens, although I see no good reason why a pound of bees may not go by mail as safely as a dozen, and no doubt such a permit will be granted; but the fear would be that some of the careless ones would not use that care and caution that would be necessary at all times to prove a safe transportation of them by mail, and if there were to be a few disasters, and loss of mail-matter, then the entire queen-traffic through the mails would be prohibited, I fear.

I do not think that the express charges on bees per pound, put up in suitable cages, carrying from one to three pounds of bees, according to the quantity desired, would be any more expensive than that of the mail—that is as Mr. Doolittle suggests in shipping bees to the North in the spring. Then this brings up this question whether it is profitable, in case of loss of bees during the winter, to send South and get a pound of bees and a queen, and put upon the combs, and soon have a prosperous colony of bees.

This then brings out the shipping idea—say about Sept. 1, the bee-keeper in Michigan puts up all his bees in cages containing one, two or more pounds of bees, that are in each colony with their queen; crates the cages in convenient packages of five or ten, as might be deemed best, and ships them to the South, as far down as the St. John's river, in Florida, to some bee-keeping friend, or partner in the business, who is prepared with hives filled with either comb or foundation, and who will turn them on the combs and care for them (for at this very date, Sept. 21, my bees are busy carrying

in honey and building comb very fast, and the river swamps are full of bloom, and will be yet for more than a month); so that bees will have all they will need for their short winter, from about Nov. 15 to Jan. 15, when the maples, blackberries, and many other wild flowers along the river begin to bloom.

Then the bee-keeper here, that expects to get a full crop of orange-blossom honey, must wake up his bees, and have them breeding as soon as possible, for the orange begins to open the last of February; so that the bees that come from the North, will have March, April and May here, or until they were needed for the clover-fields of the North; and then the old queen, if living, could be returned North with one, two or more pounds of bees, as desired, in the cases that they were sent down, so that there would be no expense for cages, as they could be used a number of times, with proper care; and the Florida man would have left a hive full of brood and eggs that would soon rear for them a queen, and be ready for the palmetto honey through the rest of May, all of June, and often part of July, from the cabbage palmetto.

I can see no reason why such a moving of bees could not be made profitable to both parties—the honey that the North-end man would save, would far more than pay the charges both ways, for I see no reason why a colony of bees (say two pounds and their feed and cage) should weigh over 5 pounds, and a case of ten would weigh 50 pounds, which, at $6.00 per 100 pounds, it would not cost over 30 cents per colony each way; but, to be certain, say 50 cents each way, making $1.00 for the round trip; and $1.00 each to the South-end man, for the care of putting them into hives, and for putting into the cages for return shipment. The extra honey obtained from the bees and the colony left of young brood and eggs, would pay for the honey-care if in the hands of a practical man.

I have no doubt but what some may think that there are many drawbacks to a practical demonstration of this theme, or scheme, and I think so myself, and will continue to do so until I know of a practical test being made; but I feel confident that with a practical man at each end of the line, that there is certainly a fair showing to make a success of it. I am corresponding with parties in the North, with whom I would like to make a practical test of a few colonies, for I have not the hives and combs necessary for only a few, but enough for a test case; and if it was practical, I would prepare to take care of a considerable number another season, and connect with it queen-rearing, from such queens as might be desired to have reared and returned to the owner of the bees, for the summer campaign in the clover-fields of the North.

Altoona, Fla.

REARING QUEENS.

Colonies Rearing their Own Queens after Swarming.

Written for the American Bee Journal

BY BYRON HAMS.

Mr. Doolittle is correct when he says (page 599) that it pays to let colonies rear their own queens after swarming. I would add that if the swarm issues at the beginning, or in the midst of a good honey-flow, and the swarm is a large one, it is a good plan, if we want honey, to place the swarm on the old stand, and remove the parent colony to a new location; then give the new swarm all the surplus combs on the old colony, or a full set of combs, if you have them.

In two or three days, or as soon as the bees get to business, I remove the queen and give a cell as nearly ready to hatch as possible. This colony, not having much brood to care for, will surprise the "natives" with the amount of honey that they will store.

After the honey-flow is over, and the young queen gets to work, we can soon build them up into strong colonies for the next flow, or for winter.

As to the parent colony, fill its surplus room with foundation as soon as it needs it. To keep down increase and secure a large yield of honey, the above plan cannot be excelled.

I place the new swarm on half-sheets of foundation; this insures straight combs, and gives the bees a chance to use their accumulated wax-scales, which would be wasted with full sheets of foundation.

I work for extracted honey, and I cannot say how the above plan would work for comb honey.

On page 619, Frank Coverdale "hits the nail squarely on the head," in rearing perfect queens. I have reared the *finest* queens this season by that variation from the Doolittle method. I select a good, strong colony to start the cells, give to it a few frames of hatching brood, and "crowd them" until they *have to* swarm. I then give a few embryo queen-cups, placed where the queen will find them (I always keep a lot on hand which I carefully save). As soon as I find eggs in the cups or cells, I am ready to remove the queen, and just as I find the proper amount of royal jelly placed in the cells, I remove them, and lift out the larvæ and fix them up, *a la* Doolittle.

Some Excellent Results.

The white clover honey crop was splendid here this season, lasting about nine weeks. Our fall crop was a failure, and as we usually get our largest yield from this source, we can consider our crop about three-fifths of a yield. My bees are in fine condition for winter, very strong in numbers, and with 30 to 40 pounds of the best honey for each colony, and when they are prepared according to Mr. Muth's plan of wintering (see pages 601 and 629), they are *bound* to go through safe and sound.

Now as to my report: Although it is not as good as I expected, I am well satisfied with the results as they are. I commenced the season with 23 good colonies, increased them to 62, by natural swarming, sold 2 swarms for $5.00, and one 3-frame nucleus for $3.00; 4,882 pounds of extracted honey at 8 cents per pound—$390.56; 144 pounds of comb honey at 15 cents—$21.60; and 45 pounds of beeswax at 20 cents—$9.00; making a total of $429.16.

I have 37 extra-good colonies of bees, not counted in the above, which I value at $6.00 each. I owe a good share of my success to the ever-welcome old AMERICAN BEE JOURNAL.

Worcester, Mo., Sept. 30, 1889.

IN COUNCIL.

The Bee-Keepers of the Northwest Meet in Chicago.

Written for the American Bee Journal

BY W. Z. HUTCHINSON.

The Northwestern Bee-Keepers' Society held its convention at the Commercial Hotel, Chicago, Ills., on Friday and Saturday, Oct. 11 and 12, 1889, at 9 a.m., with President C. C. Miller, M. D., in the chair.

That a Society loses by not holding regular meetings is shown by the diminished attendance as compared with former years. It will require a year or two to again awaken interest and bring together the brethren that have been practically disbanded. We have no fears, however, but that the Northwestern will regain its former numbers, and eventually become the best convention there is. It holds its meetings in the railroad centre of the great honey-producing West, and at the season of the year when reduced fares are easily secured. That a convention cannot be a success without low railroad fares, is shown by the fact that but few bee-keepers were present

from east of Chicago, no reduced rates having been given in that direction—why, could not be learned.

President Miller opened the meeting with prayer. The reports of the Secretary and Treasurer were read and approved.

The annual dues were reduced to 50 cents. This was done because there was money remaining in the treasury, and expenses would be light, as there would be no expense for a hall. The following male members paid their dues, the ladies being free :

L. A. Aspinwall, Three Rivers, Mich..
B. T. Baldwin, Marion, Ind.
T. J. Baldwin, Wyoming, Iowa.
John Bird, Nashua, Iowa.
S. N. Black, Clayton, Ills.
John Bradly, Wyanet, Ills.
T. S. Bull, Valparaiso, Ind.
John N. Conger, Wyoming, Ills.
D. D. Cooper, Sherman, Ills.
A. W. Cumins, Woodstock, Ills.
Mark Davis, Lisle, Ills.
James Forncrook, Watertown, Wis.
D. A. Fuller, Cherry Valley, Ills.
Russell Fuller, Richmond, Ills.
A. W. Gardner, Centreville, Mich.
Geo. L. Gast, Le Claire, Iowa.
S. E. Gernon, Waukesha, Wis.
E. P. Gibbs, Lyndon, Ills.
Chas. H. Green, Waukesha, Wis.
J. A. Green, Dayton, Ills.
G. Harseim, Secor, Ills.
A. S. Haskin, M. D., Lawrence, Mich.
James Heddon, Dowagiac, Mich.
William Heddon, Dowagiac, Mich.
S. H. Herrick, Rockford, Ills.
L. Highbarger, Leat River, Ills.
J. Hodgson, Jr., Pewaukee, Wis.
C. W. Hudson, Waukegan, Ills.
J. Hunter, Wyoming, Iowa.
W. Z. Hutchinson, Flint, Mich.
Dr. H. Joseph Jaxon, Chicago, Ills.
B. Kennedy, New Milford, Ills.
A. L. Leach, Dwight, Ills.
W. C. Lyman, Downer's Grove, Ills.
Lot Mason, Auburn, Ills.
C. C. Miller, M. D., Marengo, Ills.
M. S. Morgan, South Elgin, Ills.
Thomas G. Newman, Chicago, Ills.
Howard Ogle, Palona, Ills.
R. Pendergrass, Malta, Ills.
Geo. Poindexter, Kenney, Ills.
G. W. Redmon, Paris, Ills.
G. D. Rogers, Pecatonica, Ills.
A. I. Root, Medina, Ohio.
C. J. Schafer, Eddyville, Iowa.
C. Schrier, Peotone, Ills.
Jas. A. Stone, Bradfordton, Ills.
N. L. Stow, South Evanston, Ills.
G. Ruff, Burlington, Iowa.
M. J. West, Leaf River, Ills.
J. C. Wheeler, Piano, Ills.
C. E. Yocom, Sherman, Ills.

LADIES.

Mrs. John Bird, Nashua, Iowa.
Mrs. C. H. Green, Waukesha, Wis.
Mrs. L. Harrison, Peoria, Ills.
Mrs. D. N. Jones, Marengo, Ills.
Mrs. B. Kennedy, New Milford, Ills.
Mrs. W. T. F. Petty, Pittsfield, Ills.
Miss Gertie Schrier, Peotone, Ills.
Mrs. L. H. Scudder, New Boston, Ills.
Mrs. N. L. Stow, South Evanston, Ills.
Miss Emma Wilson, Marengo, Ills.

The Northwestern is known as the convention that sails in without any essays, or even programme. Whoever "wants to know, you know," writes out his query, and hands it to the President. So long as we can keep Dr. Miller in the chair—and we have succeeded pretty well so far—this plan will work to a charm. He keeps things stirred up and moving. If the folks are slow in talking, or in answering queries, he will call some one right out by name, and *make* him talk, and then the discussion is soon getting red hot.

The opening address, made by Thomas G. Newman, was as follows :

Mr. President and Apiarian Co-Workers :

In 1884, when last this Convention met we little thought that five years would elapse before we should meet again, but such is a fact. One thing and another have prevented the "Northwestern" from convening until this day, and now we hope to have one of those interesting occasions, such as is the delight of bee-keepers to attend.

What have we come here to do? To talk over the past and learn wisdom from our experiences and those of our co-workers. "Let there be light" was the fiat of the Almighty 6,000 years ago, when darkness covered the earth ; and then the obedient sun gave to this globe of ours the full blaze of its electric fire, and has continued to us that *light* unto the present day, dispelling darkness and warming the earth by its genial rays. Light and knowledge and power have been man's inheritance, as the days come and go. The poet wisely remarks that

> The waves that moan along the shore,
> The winds that sigh in blowing,
> Are sent to teach a mystic lore,
> Which men are wise in knowing.

To this end have we come together, so that the wisdom of each one may be communicated to all, with the magnetic currents of personal contact and hearty fellowship. For in our pursuit, as well as in all others, there is always something to learn, and the one whose ears are always open to learn, and who puts into practice the instruction gained, is the one who succeeds!

The successful bee-keeper is *not born* like the poet, but is *made* by practicing and improving upon his own experiences as well as the knowledge and experiments of others.

Mistakes are made and reverses come, but these do not discourage—they only strengthen the determination to succeed. Patient perseverance, coupled with wise and skilful methods will win at last! No season should be allowed to pass without adding to our store of bee-knowledge—both practical and theoretical. Then only may we hope to reach the top, and earn the proud distinction of being called "bee-masters!"

The honey season just ended has been a grand success in most of the Northwestern States, but in Michigan, Indiana, and many parts of the East and South, it has been one of the poorest for many years. Our country is so large, with climatic conditions so varied that no regulation will apply to all, and no harvest will result alike in all parts of it!

Is there any avocation in life that has no drawbacks? Nay, verily. Disasters come in all lines of business, but bee-culture compares favorably with any of them.

While we in the favored Northwest are enjoying the proceeds of a rich honey-harvest, let us try to sympathize with our brethren of the East and South, and encourage them to hope and labor for the years of plenty yet to come to them, as well as to others.

I trust that this Convention will be productive of much good, by diffusing useful knowledge to all present, as well as to those who are anxiously looking for the report of this meeting to bring them something to think about and to practice in their apiaries during the coming year.

Of course we shall differ in our opinions, as do the greatest and best of men, but this should not give rise to any feeling of ill-will. Our thoughts are but the "clothing" of the mind, and we might as well dislike a person for being clothed in white or blue, because our choice is for green or black—as to be provoked at the opinions of others, which do not agree with our own. Diverse opinions lead to wisdom, improvement, progress and knowledge—aye, the "liberties" of which we so often boast, are guaranteed by the diverse thoughts of our fellow men.

We have struck an era of low prices, and as the former days of extravagance will not return, waste and prodigality must cease, and a system of rigid economy be enforced.

New and labor-saving methods are demanded, and while some of you have such, we earnestly request you to describe them, that they may be practiced by all. While we cannot hope to return to the high prices of yore, we can realize some reward for our labors, and that *some* will be determined by our intelligence, industry and improved methods.

Heed the lessons which every season teaches, and you will succeed—if you do not, then you must expect to fail. We have here some level-headed and prosperous apiarists, who go through all times and seasons and prosper. Let us appropriate the light they reflect, and *follow* where we cannot lead. Intelligent and practical methods will always pay.

Let us now enter upon the discussion of practical subjects, and endeavor to do one another good, and thus make this convention one of the most useful and compensating meetings ever held in America. THOMAS G. NEWMAN.

Putting Bees into Cellars.

The first question asked was, "How early shall bees be put in the cellar?"

A. S. Haskins would put them in as soon as they were through storing honey.

James Heddon did not want them put in until they were through breeding and handling pollen, and had had several little flights afterwards. No definite date can be given.

L. A. Aspinwall had put in bees late, leaving them until the last moment, and they wintered well.

A vote was taken to learn at about what time the majority would put bees in the cellar. The greatest number voted Nov. 25. The question gradually drifted into the one of

Wintering Bees.

Mr. Heddon—If there were any system of wintering bees that would always prove successful, we would all have known it long ere this. Having said this, I will still further say that by putting bees on clean combs, feeding them properly-prepared sugar-syrup, and putting them into a warm cellar, I can winter them with less danger of loss than any one can winter a horse or a cow.

E. P. Gibbs—How about dampness?

Mr. Heddon—I am not afraid of dampess in itself. I do fear a low temperature, and dampness is equivalent to a low temperature; but keep the temperature high enough, and dampness will do no harm. Before some one gets to talking about "Nature," let me say that bees are natives of a warm climate, where the opportunities to fly are frequent. In cold climates they are away from their natural environments. For months, the cold confines them to their hives. If they consume a food containing much nitrogenous matter, the intestines become overloaded, and disease is the result.

M. Aspinwall would keep the bees warm by having them in a house-apiary, and warming it with a stove when necessary. He advocated large combs, because they contain more stores, and there is less necessity of the bees shifting from comb to comb in search of stores.

Mr. Gibbs—Did you not lose bees one year, Mr. Heddon, when the stores were sugar?

Mr. Heddon—Not in the cellar, nor by diarrhea. I lost some in the open air, that actually *froze;* but there were no signs of diarrhea.

Mr. Gibbs—I cannot believe that it is pollen that kills bees. I think that it is "cold." I have wintered bees in different cellars, and lost 50 per cent. in a cellar that was very cold, and in the others I lost none. As I now winter my bees, I would not give a man 50 cents to insure them.

Mr. Heddon—I do not care what kind of "fixings" you have, nor how you prepare your bees, if you have some bees from my apiary, with the stores that my bees have, and my bees die, yours will die also. It is a question of food, except that cold induces a greater consumption of stores, and the sooner overloads the intestines. There is no other theory, except the "pollen theory," that explains all winter losses.

President Miller—Well, suppose that we admit that it is pollen that causes the loss, what are we going to do about it? If there is nothing that we can do, except to take our chances, what is the use of discussing it?

Mr. Heddon—When sugar is much cheaper than honey, it will pay to winter bees on sugar; but when honey is worth less than sugar, as it is now, we cannot afford to do it. It will be more profitable to take our chances on honey. But we can have a selection of stores. I can have a case of honey stored in the summer, when but little pollen is stored, and put it aside for winter. After the brood is hatched, we can simply shake out the bees, and allow them to run in and take possession of the reserved case. We can winter the bees in a warm cellar, where there will be the least inducement to consume pollen. We can do the best we can.

Best Size of Sections.

The gist of this discussion was that the pound sections were the most desirable. Less than a pound was preferable to more than a pound, as the dealer would be asked to "throw in" an ounce or two over, while no fault would be found with a little lower price, as the result of a little less honey. All of Mr. Heddon's comb honey for this year had been stored in half-pound sections. He secured as much honey as when larger-sized sections were used, and it enabled him to get ahead of the farmers who brought in honey and sold it at a low price. His half-pound sections sold readily at 10 cents apiece.

Pakages for Extracted Honey.

Mr. Heddon—The pound sections made a success of the marketing of comb honey. The best package for retailing extracted honey is glass. It should hold about one pound. The difficulty is with the price. It ought not to be more than one cent or ten. When honey was high, it did not matter so much. Honey has fallen in price more than glass has.

Supers for Hives.

S. N. Black—I am using something like the old style of Heddon case. It does not exactly suit me, but I have not found anything better.

J. A. Green—No super is advisable that needs taking apart. I use a simple rim with tins nailed to the bottom of the ends to support the "section holders." I think that wide frames without top-bars, are preferable, as the bottom-bars will sag a little, which leaves a crack at the top in which the bees place propolis. There are no advantages in top-bars.

Mr. Heddon—If separators are not used, there is nothing better than my old style of super. With separators, the **T**-super is preferable. So far as working is concerned, I prefer my new style of case with wide frames, but the cost is against it.

Mr. Gibbs—I think that wide frames may cost the most, but they are the cheapest in the end, as I do not break so much honey in removing the sections. I think that separators are a necessity.

Surplus Bees.

Mr. Gibbs wished to know what to do with bees when he had more than he wanted.

President Miller advised uniting, and in the spring making stronger colonies.

Mr. Aspinwall said that the best yield he ever knew was the result of such uniting.

When to Market Honey.

Mr. Gibbs said that most of the honey was sent to market too soon. It becomes soiled and stale from standing about, before the season is fairly open.

Mr. Heddon—People desire honey when the weather is cool—not much before. If sent to the market in large quantities before there is much demand, it aids largely in reducing the price. Small crates have advantages, less likelihood of breakage, and many are sold direct to consumers who would not buy a large crate of honey.

What Hive will Prevent Swarming?

J. A. Green—A large hive.

Mr. Heddon—With my hive and management, I believe that I can produce extracted honey with so little swarming that it will not pay to keep a man in each apiary all the time.

Mr. Aspinwall—I wish to mention the wooden combs in this connection. No bees have swarmed when occupying these combs. No drones can be reared, and I do not believe that the instinct of the bees will allow them to swarm when they can rear no drones to mate with the young queens.

The Unfinished Sections.

J. A. Green — Sections filled with foundation are finished sooner, and look nicer than partly-filled sections kept over from the previous season. One or two such sections in the centre of the super will answer as a "bait" to start the bees to work, but they will never be so fine in appearance; neither does the honey keep so well. It is more likely to "sweat," or ooze from the combs.

J. C. Wheeler—I have seen Mr. Green's honey, and these old sections really look poorer.

Mr. Heddon—A new, naturally-built comb will be finished and capped sooner, when nearly ready to cap, than will one built on foundation.

President Miller—Perhaps Mr. Green does not succeed in having his sections entirely freed from honey the previous season.

J. A. Green—How do you get them cleaned?

President Miller—I pile the supers up out-of-doors, and leave a small opening, large enough for a single bee to enter. The combs will not be injured if only such a small opening is left.

J. A. Green—That is exactly the way I do.

Mr. Heddon—Dr. Miller, do you not teach your bees to become robbers and "snoops," by such management? If I were writing a book on bee-culture, I should lay it down as a principle, that, under no circumstances, should bees be allowed access to honey outside the hives. I would put the sections over a colony.

President Miller—I have never had any trouble in this direction.

Mr. Black—I should think that there would be considerable commotion and quarreling around the entrance to the stack of supers.

President Miller—There is; but I do not know that it causes any trouble.

Chas. H. Green — I secure more honey by using the drawn combs. I extract them in the fall, and just at dusk put a case of them down at the entrance of a hive. The bees come out and clean up the sections.

Mr. Gibbs—I get the honey out, and the combs cleaned up in the same way that Dr. Miller does. In the spring I break off the outside of the combs.

Several spoke of leaving the partly-finished combs until the dark honey harvest.

The Zinc Queen-Excluder.

Mr. A. I. Root said that the first size of perforated zinc that he made was too small; it troubled even the workers to get through. The next size was a little too large, and queens could probably squeeze through it. He now makes a size between the other two, which was probably the correct size. He said that he once had trouble with brace-combs being built to the bottoms of sections. He could not believe that a honey-board would allow him to take off a super, slick and clean, as Mr. Heddon said that it would. He thought that we all ought to be thankful to Mr. Heddon for his persistence in bringing the honey-board before the public.

Mr. Heddon called attention to the discussion that took place last winter at the meeting of the Michigan Bee-Keepers' Association, in regard to the number and size of openings needed in a honey-board. Two rows of perforations had proved sufficient. He believed that *one* row would be sufficient for a strong colony. One row of perforation in each strip of zinc was certainly more passage-way than was needed.

Marketing Honey.

R. A. Burnett—It is a fact that honey is sold only in a small way in warm weather. Honey does not carry so well in hot weather as in moderately cool weather. It leaks more, and soils the cases. October and November appear to be the best months for shipping. It is the privilege of the consignor to limit the price. It certainly relieves the commission man of much responsibility. Sometimes it results in gain, sometimes in loss. The pound sections seem to have driven out about all other sizes. The 60-pound, square tin-can, jacketed with wood, is the best for shipping extracted honey. There is no leakage, and the honey is kept perfectly.

Honey-Boards.

President Miller said that he had experienced some trouble the past season by bees building brace-combs above the slatted honey-boards. He could not say *why* they had done so. He looked upon the honey-board as a great invention, but had hopes that it might yet be discarded.

Mr. Heddon asked upon what he based his hopes.

The President could not say, but thought that more wonderful things than this had occurred.

Mr. Heddon did not believe that, so long as the instinct of the bees remained as at present, the honey-board would be discarded.

W. T. F. Petty reported that he had used thick top-bars, and very few brace-combs were built above them—so few that no honey-board was needed.

J. A. Green had had brace-combs built above all zinc honey-boards, but it was the result of their sagging.

Chas. H. Green had used top-bars ⅞ of an inch square. It lessened the number of brace-combs, but not to such an extent that honey-boards could be dispensed with.

Mr. Heddon—When I began using the Langstroth hive, the top-bars were 1⅛ wide, which made the openings between the top-bars a trifle over ¼ of an inch. I had much trouble by the bees building brace-combs and wax *between* the top-bars. I reduced the top-bars in width, and was surprised to see that less combs were built *between* the top-bars, but more above them.

A. I. Root had had the same experience. He reduced the top-bars in width, by cutting them down with a jack-plane.

J. A. Green—I once bought some bees in hives having frames with ⅞ square top-bars. The bees filled the spaces between them with hard wax, and built just as many brace-combs above them, as in the other hives.

Mr. Heddon—I do not see how Dr. Miller can think that the honey-board will ever be abandoned. I would be just as glad as any one to lay it aside, but I do not see how it can be done.

President Miller—The experience of Mr. Petty is a pointer in that direction.

Mr. Heddon—Yes, but the experience of these other men is a pointer in the opposite direction. Then there is this much about it, what he calls a "few" brace-combs, *I* might call a good many.

Mr. Petty—I have 150 colonies, and I will admit that I never used the honey-board, simply because I have seen no necessity for it.

Getting Bees Out of Sections.

Some member said that he had read in the AMERICAN BEE JOURNAL that Mr. Heddon had some method of getting bees out of supers without removing the supers from the hive, and he would be glad if he would disclose this secret.

Mr. Heddon—I decline.

President Miller mentioned the plan of driving out as many bees as possible with smoke, then piling 8 or 10 supers on one hive, and having one person work the smoker vigorously upon the upper super, which will drive the bees down, when a second person snatches it off before the bees have time to return.

Chas. H. Green spoke of leaning the case against the side of the hive, and allowing the bees to crawl back into the hive. This is an excellent plan when robbers do not trouble.

J. A. Green spoke a favorable word for the "Reese escape."

Mr. Heddon was again urged to disclose his plan.

Mr. Heddon—Mr. President, may I speak right out in meeting?

President Miller—Yes.

Mr. Heddon—Well, this invention is partly that of my son, and so thoroughly has he been impressed with the treatment that I have received in regard to my inventions—the disposition of a certain class to steal and claim them—that he declares that he will not suffer in this way—he will neither patent nor make public his discovery. I tell you, friends, the man who steals bread, goaded to the act by the sight of palid lips of starving wife or child, has an excuse; but he who steals the honor that belongs to another, steals something that he cannot successfully use, something that fits him only as the armor of a plumed knight fits a pollywog, and is a thief by nature——

Here Mr. Heddon threw upon the table the handful of voting-blanks with which he had been gesticulating, and strode back to his seat. Later in the day a member said to us: "Mr. Heddon was a little 'riled' once today, wasn't he?" After a moment's thought he added, "But I don't know as I blame him any."

Overstocking a Locality.

All agreed that a locality *could* be overstocked; then followed the question, "How many colonies is it profitable to keep in one locality?"

President Miller said that he was more deeply interested in this question than in any other connected with bee-keeping, unless it might be the prevention of swarming, but it was a question well-nigh impossible to answer definitely, because seasons and localities differed.

Mr. Heddon—I agree with Dr. Miller as regards locality, but not season. If there are blossoms enough to keep the bees busy visiting them, it makes no difference whether the season is good or bad. We must try to get the most money out of our field. Others must be kept out. If we increase the number of colonies until the yield per colony is small, the less opportunity is there for some upstart with a dozen colonies. He can make no profit with his low yield per colony, but I can stand it, because of my large number of colonies. I think that 200 colonies, spring count, will give the best results, and, with the proper hives, tools, and system, one man can manage such an apiary.

Mr. Root gave several instances where large apiaries, notably in California and Wisconsin, had furnished great yields; but he admitted that there was no profit for any one in keeping bees near his large apiary in Medina. Every one who tried it, was obliged to give it up.

Chas. H. Green wished to know if bees right close to basswood did any better that those a little distance away. He had taken bees right into the basswood forest, and they did no better than those a mile and a half away.

Mr. Heddon once had a new swarm that stored 29 pounds and 13 ounces of honey in 24 hours, and the bees flew 2½ miles; some of them 4 miles.

In regard to how many colonies it is profitable to keep in one locality, opinions varied all the way from 75 to 200.

Alsike Clover as a Honey-Plant.

All agreed that Alsike clover is an excellent honey-plant, and for making excellent hay. It is a profitable one for the farmer to grow. It is particularly adapted to low, moist land.

Mr. Root had furnished free all the seed that would be sown within 1½ miles of his apiary; and at half price, that sown beyond 1½ miles, and within 2 miles.

Mr. Wheeler—The trouble is that the farmers cut it too early for it to be of much benefit to bee-keepers.

Mr. Heddon warned bee-keepers against this seed business. To give it away is wrong in principle. The moment that a farmer gets the idea into his head that your bees will get honey from his clover, then he does not wish to sow it. This is human nature. Let me tell you how I managed it. You know that I publish a local paper out at Dowagiac. Well, I sent to Mr. Newman for a cut of Alsike clover. Then I wrote an article on Alsike as a desirable crop for farmers to raise. I spread it on pretty thick, but I guess I did not stretch the truth any. But not a *word* did I say about its honey-producing qualities. Then I went to our seedsman and showed him what I had done, and induced him to put in a stock of seed. I then gave notice where the seed could be obtained. The result is that the farmers have sowed largely of the Alsike. Where a man has no paper to work with, and cannot work with some other fellow's paper, the next best plan is to get some old farmer interested, and let him do the talking.

The Bee-Keepers' Union.

In answer to the question, "Is the Bee-Keepers' Union Desirable?" Mr. Heddon said: Yes, it is. Bee-keeping as a business is new. People have not yet learned to look upon it with respect. There may be a stable on an adjoining lot, and no one complains. A man may build a mill-dam, overflow the country, and cause malaria, and there is no thought of asking for the removal of either. People have become accustomed to these things, and take them as a matter of course. It is not so with bees. We need the Union to *compel* this respect. Jealousy and envy are at the root of much of this trouble. Bee-keepers need a "trust" as much as any other branch of business does.

Mr. Newman was called upon for his views on the subject, and said:

The Bee-Keepers' Union has done much to earn a right to exist. It has gallantly fought many battles in defense of the pursuit of bee-keepers, and in *every case* which has been fully and finally decided, it has *won the victory.* It has now on hand three cases, two of which have been tried in the lower courts, and there a verdict has been obtained against the bees. It will not do to let these cases stand where they are; they must be fought through to a finish, and must also be won, if that is possible.

The only question is a financial one. If money enough can be had to employ the best legal talent, they can be won. If not, then they may be lost. We want to get a lawyer like Judge Williams, af Arkansas, to argue the case before the Court of Appeals in New York, and win the case of S. W. Rich, as we won the case of Z. A. Clark, and thus have a magnificent decision to place upon record, as a precedent in New York. If money enough were in sight, the Manager would employ such a lawyer, but the present half-hearted support will not warrant such an outlay.

The idea of a jury awarding damages of 6 cents, when $1,500 was wanted by the complainant. This shows that he had no case, and had the jury not been tied up to the instructions of a weak and time-serving Judge, they would have non-suited the banker and declared in favor of the bees.

The fight against bee-keeping is rampant, and unless it is checked, no one will be left unmolested. But it must not be allowed to go on in its fight against an honorable pursuit. It must not succeed; the stars in their courses will fight against it, if the bee-keepers will not do their duty. These are not questions of a day or an age, but of all time. They are born of jealousy and hatred, and are a part of the conflict between the rights of a lawful pursuit, and the ignorant and and envious, which in some form is as old as history itself. It must now, in this new world of the West, receive its death-blow by legal tribunal and due process of law; and bee-keeping be declared a lawful and honorable pursuit.

W. Z. Hutchinson—There is this good thing about it to comfort us—the money that we pay to the Union, goes to help some unfortunate brother.

(*Concluded next week.*)

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Dec. 4-6.—International, at Brantford, Ont., Canada.
R. F. Holtermann, Sec., Romney, Ont.

Dec. 16, 17.—Northern Illinois, at Rockford, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

1890.

May 2.—Susquehanna Co., at Hopbottom, Pa.
H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

Working on the Golden-Rod.—F. B. Reynolds, Rossburgh, N. Y., Oct. 7, 1889, writes:

As you want the opinion of bee-keepers in regard to golden-rod as a honey-plant, I will give my observations. I never could find a bee on it until this season, and I must say that I never saw bees work harder on anything of the plant line; it seems as though at times they would devour the whole plant. They did not work on buckwheat; I had a piece of Japanese, not more than ten rods from my apiary, and I saw but very few bees on it.

Bee-Keeping in Minnesota.—H. H. Rosebrock, Owatonna, Minn., on Oct. 8, 1889, writes:

We have had, here in Minnesota, a very curious year for bees. In the spring, bees got some honey from fruit-bloom—enough to increase in numbers—but then we had dry and cold weather, so that in the latter part of May and the first part of June, my bees came nearly starving—they were killing drones. But from July 1 to Sept. 1, we had a continual flow of honey—it was no science to produce comb honey. My yield from 150 colonies, spring count, is 4,500 pounds of extracted, and 2,500 pounds of comb honey. The increase was small. In other years our honey season lasts from June 15 until Aug. 1, and perhaps from Aug. 20 to Sept. 10. We had more buckwheat and golden-rod honey than anything else.

Good Fall Honey-Flow.—E. L. Pratt, Marlboro, Mass., on Sept. 17, 1889, writes:

Before the six days' rain that we are now having, the bees had been getting in an immense amount of honey from fall bloom. It is of light color and good quality. At this time last fall, we were feeding our bees, but now we are taking away full combs of honey, and inserting empty comb or foundation. I have noticed a peculiar fact for the past few seasons: two years ago at this time, the bulk of the flying was toward the north; this season it is all south. I went to a 3-acre buckwheat field 1½ miles north of our yard the other day, for the purpose of seeing that grand sight of bees working on buckwheat; but not a single bee did I see, although the plants were in full bloom. The field is about half and half Japanese and common buckwheat. The fresh and heavily-scented breezes that come from it, seemed heavy with nectar.

Primrose and Aster.—J. M. Pratt, Todd's Point, N. Y., on Sept. 30, 1889, writes:

I enclose three flowers—please give their names as numbered. No. 1, I think, is golden-rod; if so, it is not nearly what it is claimed to be for honey, in other places. No. 2, I saw bees working on strong this morning, at 9 o'clock. No. 3, I think is a wonderful yielder of honey, but not of a pleasant flavor, and can be scented 100 feet from the hives. All three came into bloom in the middle of September, and continue till heavy frost.

[No. 1 is golden-rod.

About No. 2, Prof. C. M. Weed, Entomologist and Botanist of the Ohio Experimental Station at Columbus, O., remarks as follows: "It is evening primrose, *Oenothera biennis*. It is usually fertilized by moths, and I should not suppose it to be much of a honey-plant."

No. 3 is one of the numerous family of asters.—ED.]

Prize Golden-Rod very Highly—H. F. Gressman, Water Valley, N. Y., on Oct. 7, 1889, says:

I find in some localities that golden-rod produces but little if any honey; in this neighborhood it is abundant, and yields a large amount of honey during pleasant weather. Several bees may be found on one stalk, even if it stands alone in the field. Everywhere it is literally covered with bees. We prize golden-rod as a very valuable honey-plant.

This has been a very poor year for bees—far worse than last year. We obtained no honey from white clover. Basswood yielded quite a fair crop of honey, but the weather did not permit the bees to gather nectar only two or three days during the height of the honey-flow.

Experiments with Hives and Frames.—R. B. Woodward, M. D., Somerset, O., on Oct. 9, 1889, writes:

We have had a good season. I began in the spring with 17 colonies, increased to 23, and secured 1,600 pounds of clover honey—one half or more in the comb. I sold my crop on an average of 16 cents per pound. I have discarded all black bees, including the Carniolans, which, with us, are in no way superior to the best strains of Italians or Syrians. I used 3 sizes of frames—11¼x13⅜ inches, 9⅛x17⅝, and 5⅝x17⅝ inches, and saw no difference in the results. My hives are all 18⅛x14⅛ inches. The different depths are made to suit the size of frames. I am much pleased with shallow frames—5⅝x17⅝ inches, and 9 frames to the case—for extracting purposes. Bees are in fine condition for wintering. I winter my bees out-doors, and have never lost any colonies.

Only Half a Crop.—Albert K. Dakin, Tully, N. Y., on Oct. 7, says:

The honey crop in this locality has not been more than one-half of a crop, on account of the wet weather. I have sold my crop so far for 12 and 15 cents per pound.

Not a Large Honey Crop.—A. M. Vannoy, Hedrick, Iowa, on Oct. 14, 1889, writes:

Our fall honey crop in this part of Iowa, is *non est*, on account of too much windy, rainy weather; although we had the finest crop of golden-rod bloom ever known in this part of the country, we got little or no golden-rod honey; so our large honey crop is really not as large as it is supposed to be. Bees, where they have had proper care, are in good condition for winter. There are more bees, and in better condition, in this immediate vicinity, than at any time in the past 20 years.

Good Results.—Robert Schultz, Alma, Wis., on Oct. 8, 1889, says:

My 3 colonies of bees, or what I had left from 7 colonies last winter, did well. I now have 13 colonies. I had the first swarm on May 11, the second on May 22, and the third on May 24. I hived all three, and took from the first swarm, 100 pounds of honey, and it swarmed again on June 18. I hived the swarm, and took off 112 pounds; from the second swarm I took 70 pounds; and from the third swarm, 64 pounds; from the old colony I took 90 pounds. I took off 663 pounds of honey in all. The AMERICAN BEE JOURNAL is a great help.

Afflicted with Carbuncles, etc.—A. J. Duncan, Hartford, Iowa, on Oct. 10, 1889, says:

I am now, and have been for some time, sorely afflicted with carbuncles, first on my knee, that dried up after due time, then one came on my left arm; it has been there about three weeks, and is now getting some better. I now have four on the top of my head; they are not large, but quite sore, and make it quite interesting to me. I think that perhaps I have bad blood, from having so much poison injected into my system from the "business end" of the "blessed bees." I would like to have some opinions from the bee-fraternity on this (to me) important subject. My crop of honey this year has been 75 pounds of extracted honey per colony, spring count, or a little over 2,400 pounds to 32 colonies. I have sold my honey at 10 cents per pound, and do not ask the corner grocer how much *he will give*.

Buckwheat and Golden-Rod.—John K. Rich, Cato, N. Y., on Oct. 9, 1889, writes:

I have just finished taking off my fall crop of honey, and I find that one-third of it is from golden-rod, and very nice it is—very thick, and of good flavor. The balance of the fall crop is buckwheat. My bees worked on buckwheat first, and when the supers were nearly full, I raised them up, and put others under them; the lower one I found contained the golden-rod honey, and but very few were mixed. The hives of some prime swarms contained 24 pounds of buckwheat, and about 20 pounds of golden-rod honey. Last season I got but little golden-rod honey, but two years ago I had a good crop. Buckwheat yields a fair crop every year.

Apiary on a Public Highway.—A. Wortman, of Seafield, Ind., asks the following question:

What distance should a bee-keeper place his apiary from a public highway, to make it safe and lawful, according to the laws of Indiana?

[Will some Indiana apiarist please reply to this question?—ED.]

Having a Few extra sets of the AMERICAN BEE JOURNAL for the years 1887 and 1888, we will supply both these years, and 1889 and 1890, for $3.00, until all are sold. Or we will send 1888, 1889 and 1890 for $2.50, all by mail, postage paid. These are very valuable, and those who have not yet read them should lose no time in securing them.

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and Gleanings in Bee-Culture	2 00	1 75
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The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (**old edition**)	2 25	2 00
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
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Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

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Honey and Beeswax Market.

KANSAS CITY.

HONEY.—White clover and linden 1-lbs., fancy, 14@15c.; good, 13@14c.; dark, 12c; the same in 2-lbs., 13@14c.; dark, 12c. Extracted, white, 8c.; dark, 7c. Demand is good. Sales large for this time of year.
Sep. 27. HAMBLIN & BEARSS, 514 Walnut St.

PHILADELPHIA.

HONEY.—That in the comb is now arriving and the demand is increasing accordingly. The outlook is still favorable for good prices for fancy honey.—We quote fancy honey in neat crates as follows: 1-lbs., white, 17@18c.; 2-lbs., 14@15c.; buckwheat 1-lbs. 12@13c.; 2-lbs., 10@11c. Off grades of all kinds generally 1 to 2 cts. less. Extracted, white clover, 8½c.; orange blossom, 7½@8c.; off grades, per gal., 60@70c
BEESWAX.—23½@24½c.
Sep. 5. WALKER & McCORD, 32 & 34 S. Water St.

DENVER.

HONEY.—We quote: In one-lb. sections, 16@18c.; off colors, 14@16c. Extracted, 7@8c.
BEESWAX.—20@25c.
Sep. 20. J. M. CLARK COM. CO., 1421 15th St.

NEW YORK.

HONEY.—Extracted, white clover, basswood, orange blossom and California, 8c.; buckwheat, 6 cts.; common Southern, 65@70c. per gallon. Demand is good. Comb honey, fancy white 1-lbs., 16c.; 2-lbs., 14c. Fair 1-lbs., 14c.; 2-lbs., 11@12c. Buckwheat, 1-lbs., 11@12c.; 2-lbs., 10@11c. Demand very good for fancy white 1-lbs., and buckwheat 1-lbs.
BEESWAX.—22c.
Oct. 2. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—It is arriving freely and we note some little accumulation, but all will be wanted later on. White clover 1-lbs., according to style of package and appearance, 13@15c. Dark 1-lbs., 10@11c.; 2-lbs., 8@9c. Extracted is in light demand, values ranging from 6@8c., depending upon the style of package, quality, etc.
BEESWAX.—25c.
Sep. 21. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—It is selling slowly yet, but with colder weather we look for more active trade. Market is well supplied with honey, it being in many hands. In lots it cannot be sold at over 13@14c., and in cases even less, if not in first-class condition. Extracted, 6@8c.; white clover and basswood, in kegs and barrels, 7c.
BEESWAX.—25c. R. A. BURNETT.
Sep. 10. 161 South Water St.

ST. LOUIS.

HONEY.—We quote: Choice white clover comb, 12@12½c.; fair, 10@11c.; dark, 7@8c. Extracted, in barrels, 5@5¾c.; in cans, 6@6½c.
BEESWAX.—24c. for prime.
Aug. 21. D. G. TUTT & CO., Commercial St.

NEW YORK.

HONEY.—It is in good demand. We quote: Fancy white 1-lbs., 15@16c.; 2-lbs., 13@14c. Fair white 1-lbs., 13@14c.; 2-lbs., 11@12c. Buckwheat 1-lbs 10@11c.; 2-lbs., 9½@10c. Extracted, basswood and clover, 8c.; orange blossom, 8½c.; buckwheat, 6c.; California, 7½c.; Southern, 72½c. per gallon.
HILDRETH BROS. & SEGELKEN,
Oct. 11. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—It is moving fairly well at 16@17c., with occasionally an extra fancy lot at 18c. Some large retailers secured quite a quantity of white, averaging about 13@14 ounces to the comb, and are selling it at 15c. per comb, tending to demoralize other retailers, as they want to compete, as the large retailers have filled their windows with the honey, and marked it very prominently. Two-lb. combs are a little scarce, at 16@17c. Extracted, 8@9c.
BEESWAX.—None on hand.
Oct. 10. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—There is a quiet but steady demand for choice white comb, at 15@16c., dark is slow sale at 10@12c. Demand from manufacturers is fair for extracted honey, and it is good for best qualities for tables use.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Oct. 12. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—Receipts are very light, and demand is increasing. We quote: White 1-lbs. 13@14c.; dark, 10@12c.; white 2-lbs. 12@13c.; dark, 10@12c. Extracted, white, 7@8c.; dark, 6c.
BEESWAX.—None in market.
Oct. 12. CLEMONS, CLOON & CO., cor 4th & Walnut.

MILWAUKEE.

HONEY.—New crop is coming in and of very fine quality. Demand is fair and values easy. Choice white 1-lbs., 14@15c.; 2nd quality 1-lbs., 12½@14c.; old 1-lbs., 10@12c. Extracted, white, in tins and pails, 8@8½c.; in barrels and kegs, 7@8c.
BEESWAX.—22@25c.
Sep. 5. A. V. BISHOP, 142 W. Water St.

Convention Notices.

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Romney, Ont., Canada.

☞ The Northern Illinois Bee-Keepers' Association will hold its annual meeting in the Supervisors' Room of the Court House, at Rockford, Ills., on Dec. 16 and 17, 1889. D. A. FULLER, *Sec.*

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Advertisements.

POULTRY. IF you want to see one of the best Poultry Magazines that is published, send 6 cents to ROBT. A. BRADEN, Dayton, Ohio, for a Sample Copy of the OHIO POULTRY JOURNAL.
43A3t ☞ It is Grand! ☜
Mention the American Bee Journal.

THE
BEE-KEEPERS' REVIEW
A **50-CENT MONTHLY** that gives the cream of Apicultural Literature; points out errors and fallacious ideas; and it gives, each month, the views of leading bee-keepers upon some special topic. **Three Samples Free.**
W. Z. HUTCHINSON,
26Etf 613 Wood St., FLINT, MICHIGAN.
Mention the American Bee Journal.

HONEY
WE are now ready to receive shipments of **HONEY,** and would be pleased to open correspondence. Liberal advances made on consignments. Let us hear from you, as we can render prompt returns at the top market values. Reference on file with the American Bee Journal. **S. T. FISH & CO.,**
39A10t 189 So. Water St., CHICAGO, ILL.
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Muth's Honey Extractor,
Perfection Cold-Blast Smokers,
SQUARE GLASS HONEY-JARS, etc.
For Circulars, apply to
CHARLES F. MUTH & SON,
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P. S.—Send 10c. for Practical Hints to Bee-Keepers

SECTION PRESS.

WE are now prepared to furnish Wakeman & Crocker's **PRESS for putting together One-Piece Sections**—at wholesale and retail. Price, **$2.00,** by express. By the dozen—rate given upon application.
THOS. G. NEWMAN & SON,
923 & 925 W. Madison-St., - CHICAGO, ILLS.

GROUND CORK
FOR
Packing Bees for Winter.
THIS consists of small pieces about the size of a pea, and is an excellent thing for packing Bees in winter. Prices: In original packages of 100 pounds, $4.00, measuring 14 bushels.; smaller quantities, 10 cents per lb.; or a seamless sack, containing 15 lbs., $1.00.
THOMAS G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILLS.

BRIGHT ITALIAN Bees and Queens, Bee-Hives, Sections, Foundation, etc.
12Aly H. H. RUETER, Baxter Springs, Kan.
Mention the American Bee Journal.

British Bee Journal
AND BEE-KEEPERS' ADVISER,
IS published every week, at **6s. 6d.** per annum. It contains the very best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley Herts, England
Mention the American Bee Journal.

GLASS PAILS
FOR HONEY.

THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.
Prices are as follows:

To hold 1 pound of honey, per dozen,			$1.60
" 2 pounds	"	"	2.00
" 3 "		"	2.50

THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILLS.
Mention the American Bee Journal.

Patent Flat-Bottom Comb Foundation

High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free
J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),
1Atf SPROUT BROOK, Mont. Co., N. Y.
Mention the American Bee Journal.

$60 SALARY, $40 EXPENSES IN ADVANCE allowed each month. Steady employment at home or traveling. No soliciting. Duties delivering and making collections. No Postal Cards. Address with stamp, HAFER & CO., Piqua, O.
36A26t
Mention the American Bee Journal.

EXTRACTED HONEY
FOR SALE.
WE have a Large Quantity of CHOICE WHITE **EXTRACTED HONEY** For Sale, in kegs holding about **200 pounds** each, which we will deliver on board the cars at **8 Cents** per pound. Orders are solicited.
THOS. G. NEWMAN & SON,
623 & 925 West Madison-Street. - CHICAGO, ILLS.

My 21st Annual Price-List of Italian, Cyprian and Holy-Land Bees, Queens and Nuclei Colonies (a specialty); also Supplies—will be sent to all who send their names and addresses. **H. H. BROWN.**
17Dtf LIGHT STREET, Columbia Co., PA.
Mention the American Bee Journal.

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD.
PUBLISHED BY
THOS. G. NEWMAN & SON,
CHICAGO, ILL.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Nov. 2, 1889. No. 44

EDITORIAL BUZZINGS.

☞ A generous correspondent offers to loan $50.00 to the Rev. E. T. Abbott, who lately suffered loss by fire at St. Joseph, Mo., for a year or two without interest, provided others will join him to aggregate $150—and thus place Bro. Abbott on his feet again. Those who are willing to assist in this direction, will please address H. O. Kruschke, Deuster, Juneau Co., Wis.

☞ The Annual Catalogue of the officers and students for 1888-89 of the Michigan Agricultural College is on our desk. This Catalogue is for the 32nd year, and gives much general information concerning the College. The Rev. Oscar Clute is now its President. Among the Faculty are three who are well-known to our readers: Robert C. Kedzie, M.A., Professor of Chemistry; Albert J. Cook, M. S., Professor of Entomology; and William J. Beal, Professor of Botany. We note with pleasure the general prosperity of the College under its able management.

☞ Several improvements in the BEE JOURNAL for next year are in contemplation. We intend to use larger paper, and give more margins to the pages. This week we use new type for the editorial matter and letters. Printing large editions wears out the type very rapidly. We shall spare no pains or expense in keeping the BEE JOURNAL first-class in every respect, and well worthy the patronage of bee-keepers everywhere. We respectfully ask our friends to help extend our circulation—until every bee-keeper in America, who values the pursuit enough to pay a dollar, shall obtain its regular weekly visits.

Father Langstroth.

The Northwestern Bee-Keepers' Society at its last session voted to empty its treasury into the pocket of our venerable friend, Father Langstroth. Accordingly, being the Treasurer, we sent him a check for the amount, $12.25, together with another small amount sent to us by one of our subscribers for that purpose. The following is the response from Mrs. A. L. Cowan, his daughter:

DAYTON, O., Oct. 22, 1889.

MR. THOMAS G. NEWMAN:—My father is deeply grateful to the bee-keepers, for their remembrance of him. He is still sad and feeble, and I appreciate highly every kind act which lightens for a time the clouds which surround him—by the knowledge that his labors are not forgotten.

My father sends his kind greetings to you and to your family. We are grieved to learn of Mrs. Newman's illness. I have suffered so often from the same terrible disease (erysipelas), that I know how to sympathize with her. With best wishes for her speedy recovery, Respectfully,

ANNA L. COWAN.

"Sad and feeble"—how these words send gloom to our hearts! Has that kind face, genial smile and sweet voice given place to sadness, because of the feebleness and natural decline of the physical system? Be not *sad*, noble brother—though "weeping *may* endure for a night, joy cometh in the morning!" *Cheer up*, and remember Him who says, "When thou passest through the waters, I will be with thee." With eyes fixed on Him to guide through the deep waters, and through the pearly-gates, we hope with you soon to be made "living stones in that Temple not made with hands, eternal in the heavens"—where "no discordant voice shall e'er be heard, and all that we experience will be perfect bliss, and all we express will be perfect praise," and where "love divine will ennoble every heart, and hallelujahs exalted employ every tongue."

Essays on Extracted Honey.

We offer Cash PRIZES for the best essays on "Extracted Honey," each essay not to exceed 2,000 words in length, and must be received at this office before Jan. 1, 1890. The first prize is $5.00; the second, $3.00; and the third, $2.00. All essays received on this offer will become the property of the AMERICAN BEE JOURNAL, and is open for competition to its subscribers only.

☞ *Frank Leslie's Illustrated Newspaper*, in addition to numerous attractive literary features, last week contained a large number of pictures illustrating the Knights Templar's parade at Washington, the manufacture of bank-notes at Washington, together with a graphic picture of the recent electric-wire horror in New York, and a dozen other pictures of current events.

☞ The sample of golden-rod honey, mentioned on page 668 by Mr. C. E. Dow, is received. It is thick, and excellent in flavor.

Spraying Fruit Trees.

The Green Nursery Company, Rochester, N. Y., in their circular of the Wilder pear, give some very poor advice about spraying plum trees when in bloom. They say:

Ten years ago but few plum trees were grown. Fruit growers supposed that the curculio was unconquerable. But it appears that the curculio is as easily destroyed as any other insect, and now plum growing is a great success, and very profitable. A spray of very weak Paris green water thrown upon the foliage at blossoming time, also again a few weeks later, destroys the curculio.

Mr. C. A. Huff, of Clayton, Mich., wrote them that their advice would do great damage by poisoning bees if the sprinkling be done while the trees are in bloom. We would call their attention to the matter, and present to their notice this fact, that should the bees gather the poisoned honey, and it be eaten, much damage would result in a way that would be very unpleasant for them.

Besides, the insect does not damage the blossom. The fruit is injured; and spraying the blossoms is useless. The time to spray the trees is just after the blossoms fall—then it will kill the insect-pest, and do no damage to bees or honey.

The Green Nursery Company have no doubt innocently fallen into error, and will cheerfully make the correction in the next edition of their Circular, now that their attention is called to the matter.

Honey Instead of Sugar.

The recipes have been sent to us quite freely, as we requested, and have been inserted in the Honey Almanac. Mr. J. W. Stitson, of Otsego, Wis., writes thus about the uses of honey instead of sugar in cooking:

It would take considerable space to write out all the recipes where honey should be used for cooking. White clover honey may be substituted for sugar in the Recipes of any Standard Cook Book, pound for pound, and improve the flavor. Lemons add to its delicate taste.

Honey Misrepresentation.

The editor of the Chicago Daily *Herald*, in the issue of Monday, October 27th, 1889, answers a correspondent thus:

A. and B., Plano, Ill.—There is such a thing as manufactured honey. The comb is made out of paraffine.

We wrote him a letter asking for the proof of his assertion about manufactured comb honey; telling him that there was no such thing in existence; referred to the offer of Mr. Root of $1,000, and told him that it would be very easy to get the money if his "item" was true, etc.

He neither deigned to reply, nor to correct his bold assertion. Honesty would dictate that correction should be made, with an "apology" for hasty assertions about matters concerning which he was entirely ignorant.

GLEANS OF NEWS.

The Honey Almanac for 1890.

By the time this JOURNAL is in the hands of subscribers, the new Honey Almanac will be ready for distribution, and orders on hand will then be filled in rotation.

Its 32 pages are filled with interesting facts, figures and suggestions concerning the uses of Honey for Food, Beverages, Cooking, Medicines, Cosmetics, Vinegar, etc. Also, its effects on the human system are tersely noted; a brief refutation is given of the Wiley lie about manufactured comb honey; a short dissertation sets forth the mission of bees in fertilizing the flowers, and increasing the fruit product. Instead of being an injury to fruit, bees are the fruit-growers' best friends.

Beeswax, its uses, how to render it, and its importance as a commercial product, is described, and 17 useful Recipes are given.

Each alternate page is an illustrated calendar for the month—making a complete Almanac for the year 1890.

This Honey Almanac places in the hands of bee-keepers a powerful lever to revolutionize public sentiment, and create a market for honey, by making a demand for it in every locality in America.

Wisdom would dictate that a million of them be scattered by the first of January.

We will ship them as soon as ordered. Prices: $2.50 per 100; 500 copies for $10.00; 1,000 copies for $15.00, delivered at the freight or express office here. The bee-keeper's Card will be printed upon the first page, without extra cost, when 100 or more are ordered at one time.

Mr. H. O. Kruschke writes as follows concerning these useful pamphlets:

Set forth all the merits of *extracted honey*, for that needs it the most. These Almanacs will sell honey, where without them none could be sold.

I had occasion to take some extracted honey to a neighboring town. I could not tarry long there, so I left it in one of the largest stores. I hung up a couple of my large cards, gave the proprietor about 25 of the pamphlets on "Honey as Food and Medicine," and, naming the price the same as comb honey, I threw in the tin pails.

I left 100 pounds. None had been on the market there since the days of Perrine; and that was not pure. The merchant was loth to take it, but said he would see what he could do. I went up to make collection this summer, and the merchant told me that it was hard to get customers to take it, as they were afraid that it was glucose, etc. But he handed to each one a pamphlet, and in a day or two several asked for honey.

If it had all been put up in small pails all would have been sold in a short time. But the laboring people do not like, or cannot buy a large quantity at a time; so hereafter I will put it up in small pails, and furnish it to those who want a large supply, as much as they desire, in their own receptacles. My honey, this year, is quite dark, but my customers do not object to that. I get 10 cents per pound; or in pails, 12½ cents per pound for it. I hope you will get more orders for the Almanacs than a 100,000 edition requires, and make half a million at the start. I know they will be a great aid.

Bee-Keeping in South Africa.

The method of bee-farming, as it is carried on here, says a correspondent to *Gleanings*, is as follows:

A native cuts a circle in the bark of a tree, and about three feet above he cuts another. Then he cuts in a straight line from one circle to another, and strips off the entire bark as cut. While this is still green, he refolds it in the shape of the tree, and carefully sews up the centre seam, and after folding the two ends in a more or less square form, he sews them up, leaving an entrance for the bees. His thread is bark, and his needle is a thorn, and his punch is his spear. This is his bee-hive, and it seems to do excellently for this class of bees.

The forests all about are well provided with these hives, placed in the tree tops, and it seems that the greater number of these hives sooner or later become inhabited with bees. The bees here are not so large as the honey-bees of North America, nor are they much smaller.

Swarms that have alighted about the house from time to time are about the size of a half bushel. Honey here is in abundance, and very cheap. Honey is 10 cents a bucketful (three gallons). Comb honey we never see. The matter of extracting honey is simple with the African; he simply cuts out the combs, and with his hands squeezes out the honey. The honey is of a richer quality, and much thicker than any I ever saw in America. Probably the climate is the chief agency in ripening the honey to so fine a state.

Marking the Bees.

The "funny-man" of the Pittsburgh, Pa., *Bulletin*, has this to say about the late decision of a New York court about the bees becoming trespassers when they visit other lands than those belonging to their owner, when out in search for honey. He says:

The fun will begin when the owner of the land tries to find out just whose bees are standing on their heads in flowers, or taking the honey from his buckwheat field.

There are difficulties in the way of his wife to stitch his initials in the wings of all the bees from his apiary, as she would mark the corner of his handkerchief, or the northern zone of his stockings. Nor would it be a pleasant job to use a rubber stamp and mark each one of his honey insects. The latter would object to this—pointedly.

Cattle may be branded, and sad-eyed sheep can be frescoed with a brush and paint, but the bee is not formed by nature to wear the monogram of its owner. Neither has nature fitted the bee with a safe handle whereby it could be held while undergoing the process of marking. The most amiable boy would decline holding a bee for such or any other purpose—at least would refuse to hold more than one. Even to catch and insert a healthy bee in a device made for the holding process would entail unpleasant results to the catcher.

The tresspassing of honey-bees in New York State will go on in spite of the Supreme Court, and the busy and buzzing trespassers will go unstamped.

☞ Frank Leslie's Popular *Monthly*, for November, is crowded from cover to cover with pictures, stories, decriptive and biographical articles, scientific lore, poems and seasonable literary side-dishes, is a striking illustration of the scope and fullness of the modern magazine.

Preparing Bees for Winter.

Successful wintering of bees depends largely on preparations made before cold weather sets in, such as uniting weak colonies, feeding, etc. The extra food must be given so early that the bees can seal up their stores. Unsealed comb during winter is not healthful food. Whatever variety of food is given them, the moisture that arises from the bees during cold weather enters the unsealed stores, and produces disease.

It is far better to look to this important matter during the honey season, and prepare frames of sealed honey to supply all colonies that need food. But, in our greed for a heavy crop, we are apt to lose sight of this, and when feeding-time comes, we buy sugar, at high prices, to supply these wants.

Uniting bees, and supplying all colonies with fertile queens, is of primary importance. As we have the advantage of movable-frame hives, we should thoroughly arrange the brood-nest in every colony so that the brood shall occupy the center of the hive or combs. If a frame of brood is carelessly set on one side, the bees occupy the other side, and the brood separates.

After properly arranging the hive and providing a good queen, we are ready to feed. The food will be stored around the cluster of bees. Frames of comb filled with pollen near the cluster of bees are considered injurious to bees during winter. This has been our experience, and we take particular pains to either remove such frames from the hive, or place them outside of the brood-nest.

Bees should not cluster on frames filled with pollen during winter. They use too much pollen as food, and it has a tendency to produce diarrhea.—*American Agriculturist for November.*

New Postal Cards.

The new postal cards soon to be issued will vary in size. There will be three sizes when the contracts are finally taken up—one, a fine, delicate card for ladies' use, much smaller than that now in circulation, and much finer quality. Finely calendered paper will be substituted for the old buff blotting-paper. An intermediate card of the same size as the one now in use will be retained, and a new large card will be introduced that can be used for business purposes. It will be large enough to allow a bill-head thereon, besides the other matter.

Subscribers who do not receive this paper promptly, will please notify us at once.

Convention Notices.

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☞ At the request of several bee-keepers, I hereby make a call for a meeting at Higginsville, Mo., on Thursday, Nov. 14, 1889, at 9 a.m., for only one day, for the purpose of organizing a bee-keepers' association. Let all bee-keepers attend, that can do so.
J. W. ROUSE, Santa Fe, Mo.

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QUERIES and REPLIES.

Keeping the Queen in a Cage After Having Been Mailed.

Written for the American Bee Journal

Query 664.—1. Can a queen received by mail, that cannot be used at once, be kept with safety in a cage by herself, on top of a colony, above the feeder hole, shut up with wire-cloth, with only a paste of honey and sugar for food? 2. How long could a queen be kept safely in such a position, on such paste, strictly by herself, *i. e.*, without any other bees for feeding her?—J. B. W.

1. Yes. 2. I do not know.—H. D. CUTTING.

1. Yes. 2. I do not know. I should not like to risk it very long, if she was worth anything. —A. B. MASON.

1. Yes. 2. If she has plenty to eat, and is warm, she can remain for weeks, or as long as needed.—DADANT & SON.

I should not like to keep her so at all. Why not arrange the cage so that other bees can feed her?—A. J. COOK.

1. I think that she might, if the food is wet enough. 2. Perhaps for weeks, in warm weather.—C. C. MILLER.

The queen-breeders will answer this query to the satisfaction, no doubt, of the enquirer.—EUGENE SECOR.

1. Yes. 2. I have kept them thus for 15 days. The queen, however, should be placed as soon as possible.—J. M. SHUCK.

I lost one in trying to keep her over night, in this way. I do not know—not long, at best.—J. M. HAMBAUGH.

1. Yes. 2. For any length of time, if the conditions are all right. I prefer to put in 1 or 2 bees with her.—P. L. VIALLON.

1. Yes. 2. For a considerable time. It is better to have other bees with her in the cage, if she is to remain confined very long.—C. H. DIBBERN.

1. Not with any certainty, if the weather is very hot or very cold. 2. If the weather were favorable, she could generally be kept a considerable length of time, but much depends upon the colony.—R. L. TAYLOR.

1. Not for any considerable time. 2. I cannot say; if situated so as to receive the heat of the colony, probably two or three days. I have had them die sooner than that.—MRS. L. HARRISON.

Possibly. The more I think over this question, the more I am led to believe that there is "danger" in thus confining a queen—danger of impairing her future usefulness. I should not wish to thus treat a valuable queen. —WILL M. BARNUM.

In warm weather, when honey is being gathered, a fertile queen may be kept in a cage over a colony of bees that have a laying queen, indefinitely, provided that the bees do not close the meshes of the cage with propolis. A good way to feed a queen in a cage, is to cut a thin slice from the outside of a comb of sealed honey, and lay it on the upper side of the cage.—M. MAHIN.

1. Yes. I have kept them for several days in this way. 2. A week at least. I should prefer, however, to let the bees have access to the outside of the cage.—J. E. POND.

1. She can be so kept, but "how long," very much depends. It is always the best not to resort to such plans of preservation, but to give the queen to a nucleus, in case you cannot do better.—J. P. H. BROWN.

If the colony is queenless, a queen can be kept caged on the frames safely for 30 days or more, without any food in the cage. But if the bees of the colony could not reach the queen to feed her, she would live but a few days, even with the food in the cage. —G. L. TINKER.

If you will make the food of granulated sugar and honey, she can be safely kept from two to four weeks. At least I have so kept them for that length of time, but I much prefer to introduce them as speedily as possible. —G. M. DOOLITTLE.

Yes, a queen can be kept in that way for a time—sometimes for several days. Much depends upon minor conditions, which you do not mention. I should not want to risk a very choice queen in that way a great while.—JAMES HEDDON.

1. I do not think it advisable to keep a queen by herself in a cage, except when introducing her; therefore I would say that she cannot be *safely* kept in that way. 2. I cannot answer the question, as I do not know what you mean by, "on top of a colony above the feeder hole"—there are so many sorts of feeders, some having holes, and some not. In fact, I know of no such a place as "on top of a colony above the feeder hole" that would be a fit place to confine a queen in a cage.—G. W. DEMAREE.

1. A caged queen can be kept for some days, laid on the frames above the brood-nest, or hung, with a wire between the frames. If she is a queen that has been sent by mail, she can live for a week, perhaps, on the "Good" candy that the queen-cages are supplied with. 2. Why should she be "strictly by herself?" If she has been shipped, there are always bees with her. If you catch her and cage her yourself, put in some bees. Keeping queens, I have found to be risky business—the ants, or something eat them. If I had a valuable queen, and the colony where I wanted to put her was not ready, I would take a queen that I did not care for, from another colony, and introduce the good, new queen there, and let all the risk be with the common queen.—MAHALA B. CHADDOCK.

A queen can be kept in a cage, and placed over the frames of a hive for several days, if she is accompanied with some bees, and has sufficient food; or better, she may be so placed that the bees of the colony can feed her. Of course, the best way is to make nucleus colony for her, if she is of any particular value.—THE EDITOR.

We Propose to all who subscribe now for 1890, to *give* them all the rest of the numbers of this year *free*—so the sooner they subscribe, the more they will get for their money.

Now, in order to pay our friends to work for our JOURNALS, we have gotten up special editions of Mr. Doolittle's "Scientific Queen-Rearing," (with Appendix), and Dr. Miller's "Year Among the Bees," bound with nice paper covers, and will *present* a copy of either book to any one who will send us two **new** subscribers for either of our JOURNALS (the BEE JOURNAL, weekly, or the HOME JOURNAL, monthly).

These editions are not for sale, but are gotten up specially for premiums for getting new subscribers. They are nicely printed, and will be sent *free* of postage, as pay for work to be done for our JOURNALS. Clubs need not be located at one post-office, and may contain one "Bee Journal" and one "Home Journal" to the same or different addresses; or both may be for either JOURNAL, as may be desired. Dickens or Waverley may be obtained for each subscriber in this club as offered on the last page of this JOURNAL.

The Farm Journal, Philadelphia, Pa., has the largest circulation of any agricultural periodical in the world—150,000. It is now in its 13th volume, and is a good, practical Monthly. We can offer the *Farm Journal* and either the AMERICAN BEE JOURNAL or the ILLUSTRATED HOME JOURNAL from now until Dec. 31, 1890, for $1.20.

Or, we will *give it free* for one year to any one who will send us *one new* subscriber for either of our Journals with $1.00 (the subscription price).

This grand offer should bring us thousands of responses at once.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble.

CORRESPONDENCE.

GOLDEN-ROD.

It Yields Abundance of Honey in Maine.

Written for the American Bee Journal

BY J. F. LATHAM.

In this locality the golden-rod is an excellent honey-plant. Like other species of the melliferous vegetation, it is quite sensitive to atmospheric influences, but it will retain its verdant foliage and brilliant bloom with apparent vigor when herbage of a less hardy nature will wilt and fade from a lack of moisture; although in times of drouth its secretion of nectar is scanty, bees will throng its bloom from "early morn till dewy eve," often increasing their stores, and when not overburdened with brood they will store some surplus in the sections.

When the ground is saturated with moisture, and the nights warm, with copious dews, the secretion of nectar by the golden-rod is quite profuse. On mornings following a good day's work by my bees, I have observed miniature puddles of water on the platforms, in front of the hives, fed by a trickling from the brood-apartments, the result of evaporation.

During the evenings following a good flow of nectar from the golden-rod, the air in the apiary will be fragrant with its odor, as the bees in their "cooking process" force it from the hives. The honey from the golden-rod is thick, heavy, of a light amber color, and were it not for its slightly pungent flavor (a relish agreeable to many who like honey), it would rank second to no other with which I am acquainted.

That honey from the golden-rod is as good as that from any other source for bees' winter food, I have never had reason to disbelieve, although much has been written in the bee-periodicals denouncing its qualities. For eight years I have depended upon the fall bloom for winter supplies for my bees, with the exception of a small quantity, usually, of honey from the raspberry and clover bloom, that might remain in the brood-apartment at the close of the white honey harvest; and I have not, during that time, lost a single colony by the causes attributed to fall honey.

Usually, during the first week of August, the yellow plumes of the golden-rod begin to greet the expectant bees, from the roadsides, rill-banks, meadows, and waste uplands; and from that time, often until the middle of October, they will be found among its bloom. To-day (Oct. 10) I saw a few of my bees come in laden with pollen from the golden-rod and aster, and, judging from their distended appearance, they had honey also from the same source.

Had it not been for the golden-rod and aster, my efforts to procure even a very moderate income from 60 colonies of bees this season, would have resulted in complete failure. As it was, after the golden-rod commenced to bloom the rains ceased, and about four weeks of as delightful honey-weather as one could wish for followed. As a result, my bees filled their poverty-stricken larders to repletion—some to excess.

With what honey I have taken from combs added to the brood-apartment, and what I think may be taken from the same source next spring, I shall receive, by extracting, 500 pounds of golden-rod and aster honey, in addition to 1,000 pounds of white honey in the comb. The above, present and prospective, with an increase of 8 colonies, is the sum total of my bee-keeping for 1889.

West Cumberland, Maine.

IN COUNCIL.

The Bee-Keepers of the Northwest Meet in Chicago.

Written for the American Bee Journal

BY W. Z. HUTCHINSON.

The following is a statistical table of bees, honey and beeswax for 1889, represented by the convention:

Name.	Colonies. May.	Oct.	Honey. Com.	Ex.	Unsold. Com.	Ex.	Wax Lbs.
L. A. Aspinwall	2	2	131	26	....	....	....
B. T. Baldwin	84	120	800	2300	....	300	25
T. J. Baldwin	30	70	500	2500	400	2030	100
S. N. Black	33	60	1200	....	300	....	....
E. Bundy	7	18	650	....	350	....	....
J. N. Conger	66	124	5000	1000	3000	700	25
D. D. Cooper	12	24	600	150	....	125	....
A. W. Cumins	7	20	179	371	80	....	....
Mark Davis	8	17	600	10	....	300	....
D. A. Fuller	70	125	5000	400	2500	....	....
Russell Fuller	12	28	400	....	200	....	....
E. P. Gibbs	80	160	8000	100	....	100	250
Chas. H. Green	85	162	2000	900	1800	800	20
J. A. Green	113	185	5500	3000	5000	2250	50
G. Harseim	183	320	2800	1400	1300	200	65
A. S. Haskin	32	40	200	300	200	300	25
James Heddon	200	300	1000	4000	800	3000	50
S. H. Herrick	22	38	1800	350	100	50	20
L. Highbarger	40	65	....	1600	1000	400	....
C. W. Hudson	12	31	393	892	100	250	....
B. Kennedy	35	68	2800	100	....	....	....
W. C. Lyman	32	49	300	1750	75	1000	....
C. C. Miller	240	335	11703	350	1200	....	....
W. T. F. Petty	80	150	3000	3000	3000	5000	125
G. W. Redmon	50	75	1000	....	600	....	10
G. D. Rogers	45	51	2000	500	1800	....	50
G. Ruff	12	24	400	....	200	....	10
C. J. Schafer	61	103	5000	2000	3000	1000	....
C. Schrier	20	34	1400	....	500	....	....
Jas. A. Stone	100	100	2500	....	1000	....	50
C. H. Stordock	97	127	1200	5800	1100	5500	50
J. C. Wheeler	160	278	6000	200	1000	....	....
C. E. Yocom	24	45	1200	600	1000	500	....
Totals,	2052	3348	75253	33659	31605	21775	925

☞ Two-thirds of those reporting use the Langstroth frame.

The following officers were elected: President, C. C. Miller, of Marengo, Ills.; Vice-President, J. A. Green, of Dayton, Ills.; Secretary, W. Z. Hutchinson, of Flint, Mich.; and Treasurer, Thomas G. Newman, of Chicago, Ills.

Freight Rates on Bees.

The following letter was presented by Thomas G. Newman, and read:

FRIEND NEWMAN:—I intend to be present at the Chicago Convention, held Oct. 11 and 12, but in the meantime should any other business hinder me, will you be so kind as to bring before the convention the subject of the rates charged for sending bees by freight? I think it is of great importance to all bee-keepers in this country.

I would suggest that a committee be appointed by the convention, to consult the railroad authorities, and enlighten them in regard to the unjust ruling and high freight rates on live honey-bees. The tariff and classification as it now is, provides for third-class rate, mimimum weight 20,000 pounds, on bees in hives of any quantity; that is to say, if you wish to ship only 10 colonies, you have to pay for a full carload of 20,000 pounds capacity, and then you are not allowed to load any other stuff, such as supplies, etc., in the same car. Just consider for a moment what an unjust rule, and exorbitant charge this is—for about one-fortieth of a carload they charge for a full carload of 20,000 pounds.

In former years we could ship any number of colonies, and they would charge according to weight; but for the last six months, all railroad companies have combined, and adopted the above rule and tariff classification.

Last week I had some experience in that line with the railroad company, which I will submit. I exchanged with a certain party in Pierce county, Wis., 75 full colonies of bees for 80 acres of land; the bees had to be shipped to Woodville, in St. Croix county, on the Omaha railroad about 40 or 50 miles this side of St. Paul, Minn. The amount of freight that the company charged me was $80, when, in fact, they only charge $40 for household furniture, etc. But I would not have complained about their charges, if they would have allowed me to load other stuff in the car, but they refused to let me do so.

I wrote a letter to the General Freight Department, and explained the matter, and asked to be allowed a special rate so as to permit me to load other stuff in the car. I received an answer from the Superintendent, informing me that they are not permitted to make it less than the published tariff, and he could not set aside their adopted rule, and make it a mixed carload; but referred the matter to the chairman of the classification committee, to see what he could do for me.

In a few days after, I received his answer, stating that he could not do anything for me in regard to the matter, because the rule and classification had been adopted by the combined railroad companies.

After they had charged such an exorbitant price, they would not take any risk whatever. I then asked them what the difference would be, if I load a car with iron ore or bees, if they take no risk for bees: but they left this question unanswered.

The Superintendent admitted that their ruling was unjust, and the rate too high on bees, but he had to carry them out until they are changed. I am of the opinion that if a good committee is appointed by the Chicago convention, to bring the matter before the classification committee, a more favorable tariff for bees could be gained. CHRISTOPHER GRIMM.

Mr. Green said that the Chicago, Burlington & Quincy railroad for a year had such a ruling. Less then a carload was charged as much as a full carload.

It was moved that Mr. Thomas G. Newman be appointed a committee to attend the meetings of the railroad transportation committees, and endeavor to secure a change in the unreasonable ruling.

Mr. Newman thought that it would simply be so much time wasted. These bodies did not live up to their agreements. He cited the instance where members of the Society had failed to secure reduced rates from the east of Chicago, when such rates had been promised.

Mr. Heddon—We must treat with railroads upon *business* principles. To simply go to them with a complaint amounts to nothing. It must be shown to them that such rulings as the one mentioned only throws the business of carrying bees into the hands of the express companies. By express *is* the best way to ship bees, unless sent in large quantities, and the owner with them.

Mr. Root—We have had quite a little to do with railroads, and have found them quite reasonable.

Thomas G. Newman, A. I. Root and James Heddon were finally appointed as a committee to confer with the railroads.

Thirty dollars were voted to the Secretary, and, on motion of Mrs. Harrison, it was voted to pay any balance in the treasury, after all bills were met, to dear Father Langstroth.

A vote of thanks was extended to the proprietors of the Commercial Hotel, for courtesies shown in giving reduced rates, free hall, etc.

Time for Next Meeting.

As there are uncertainties in regard to when the best railroad rates may be secured another fall (the Exposition buildings are to be torn down), it was decided to leave the fixing of the date, for the next meeting, with the officers. A preference was expressed for the latter part of October.

The convention adjourned to meet at the call of the officers, in the fall of 1890. W. Z. HUTCHINSON, *Sec.*

FALL HONEY.

Unfinished Sections—Gathering Honey Rapidly.

Written for the American Bee Journal
BY AARON COPPIN.

I have paid particular attention to golden-rod for three seasons; we have two varieties of it here, and I have never seen bees work on the one shown in "Prang's National Flower." I have seen bees work on the other variety a little, but I do not think that its value is much as a honey-plant. The aster is our very best fall honey-plant.

The honey crop has been very poor here, and bees are not in very good condition for winter. I have just been overhauling some colonies that I was working for extracted honey, thinking that I had lots of honey to extract, but those that had honey in the upper stories, had nothing but empty combs in the brood-nest, so that the bees need all the honey for winter; hence I have nothing to extract this fall.

I am also giving all unfinished sections to the bees to clean out, as I do not think that it pays to extract such small pieces, especially when the bees need feeding.

I was preparing several colonies for winter, from Oct. 1 to Oct. 10, and I found fine-looking queens, but not a bit of brood. I think that it is early in the season for bees to be entirely without brood.

How long it takes bees to find pasture, get a load of nectar and return home again, I do not know; but I took 2 colonies five miles from home, and put them down by a farm-house about one-fourth of a mile from a buckwheat field, to see what difference in the quantity and quality of honey there would be between those two and the home apiary, as I had no buckwheat at home. I released the bees, and I went right to the buckwheat field and back again, which took me about 15 minutes, and I never saw loaded bees come home faster than those did.

Wenona, Ills., Oct. 17, 1889.

HONEY-BOARDS.

Best Material for Brood-Nest Covers in Winter.

Written for the American Bee Journal
BY O. B. BARROWS.

My neighbor, Mr. Pinkerton, usually keeps from 100 to 150 colonies of bees, all of which he winters in his cellar; a part of them he covered the brood-nest with enameled cloth, a part with quilts, and a part with honey-boards made of wood; on these last, which have slots for the bees to pass up through, he uses the two-pound sections, and when the sections are removed in the fall, he covers the slots with a narrow board; on the others he uses one-pound sections. When he put them out in the spring, he saw no difference, but when they came to storing surplus honey he noticed that he was using the two-pound sections much the faster, which would indicate that those under the wooden honey-board had wintered the best.

Now I wish to ask, which is the best material for a honey-board to cover the brood-nest in the winter, where bees are wintered in a cellar? Will some one please reply?

Marshalltown, Iowa, Oct. 12, 1889.

SEASON OF 1889.

Carniolan Bees—Well Pleased with the Results.

Written for the American Bee Journal
BY F. S. JOHNSON.

One week ago I took the last of the sections from my hives. I began the season with one strong colony and one weak one, and I now have 6 colonies, with an average of 10 American frames solid with honey, and have taken 362 well-filled sections from them—362 pounds of honey. The old strong colony gave 137 pounds of surplus honey, and the new colony, taken from the old one, gave 136 pounds.

I purchased a Carniolan queen on June 26, gave her one frame of brood and one empty comb; the colony filled 12 American frames solid with very nice honey, and are very strong and in good condition for winter.

I had one small swarm which I found clustered on one of the rails between the ties on the railroad track, on one windy day, Aug. 25. I scooped them up in my hands, and put them into a box, and by the use of a little smoke, I succeeded in getting them all in. At night I took them home, and gave them foundation, and one frame of honey, partly filled. They now have

8 frames well filled, and are in good condition.

I have 2 colonies of hybrids, which are very cross. I shall take the heads off from the queens in the spring, and give them queen-cells or queens from my best colony. I am not prepared to pass my opinion upon the Carniolans yet, but I think that I shall like them. I shall use them next season to rear queens from.

I did not see a bee on sumac or golden-rod this season; heart's-ease gave us our surplus. I am well pleased with my success with bees.

Campbell, Nebr.

UNITING.

A Simple Method of Uniting Colonies and Nuclei.

Written for the American Bee Journal
BY JOHN CRAYCRAFT.

The ways of uniting weak and queenless colonies of bees, recommended by many correspondents, differ from my method.

I open the hive of the colony to which I wish to give the queenless one, and turn the enameled cloth cover up at one corner furthest from the entrance, sufficient for a small passage for the bees; then about dark, or at any time when all the bees are in, I place the queenless colony over the other that I had prepared, which makes it a two-story hive. If this is not enough, I put on the third colony that I wish to unite, making it then a three-story hive.

The small passage way allows the bees to unite, and in two or three days all the bees will be with the queen, and where the brood is. Then I can arrange the combs to suit the season—if for winter, or for the spring, or for honey work.

I have practiced this method of uniting successfully for several years. I use this all through the queen-rearing season in uniting nuclei when queens are taken out.

My hives are the Simplicity style, only I use a small hive, and 10 frames, each 9⅛x13½ inches, outside measure; also loose bottom-boards. I often use these hives four stories high for extracting, and for comb honey I have light trays that hold 18 one-pound sections, which set inside the hive, and I can place on as many of them as I may desire, or the colony can use.

I have all fixtures about the hives so made that any bottom, roof, hive, tray or frame will fit in any place, so that I can divide, unite, rear queens, or make any change that I may desire—use one story or six of them, if I wish to do so.

The foregoing is my method, and the kind of hive that I find that suits me best; and any hive that will not admit of all these working changes, is not the hive that practical honey-producers are looking for.

Altoona, Florida.

Under the Whispering Leaves.

Written for the Illustrated Home Journal
BY MAHALA B. CHADDOCK.

In my old hammock hanging low,
Near where the golden lilies grow,
I'm swinging, swinging to and fro,
Beneath the Whispering Leaves.
Sweet flowers are blooming all around—
While virgin snowflakes strew the ground;
All life is full of scent and sound,
Of flowers, and birds, and bees.

The scarlet tanager sings in glee
From the swaying bough of the elm-tree,
And then with wing so bright and free,
Seeks his more timid mate.
And far away the lark soars high,
As if he sought his love in the sky,
To woo her to the nest in the rye
Beyond the orchard gate.

The yellow bees hum a gladsome tune—
A song of joy for the royal June,
With a sad note that she dies so soon—
Ah! happy honey-bees.
And as their busy world moves on—
Their tiny world, with its working throng—
I listen to their joyous song,
As I swing beneath the trees.

The swallows fly to the sheltering eaves;
The chittering wren its rough nest weaves,
And overhead are the Whispering Leaves,
That whisper all the day.
I look above at the changeful blue,
With dancing sunlight glancing through,
And wonder if the words are true,
That these still talkers say.

And what they find to talk about,
Week after week, day in, day out;
And if they'd like to laugh and shout—
These restless Whispering Leaves.
The reaper's noise seems far away,
And stiller grows the children's play,
The rain-crow calls his plaintive lay,
Above the Whispering Leaves.

And then I hear them high aloft,
In rustling cadence whispering soft,
Say "Hush," as a loving mother oft
Will soothe the babe at her breast.
And then in tones of tender grief,
They spoke of the sin of unbelief,
In the power of love to bring relief,
To mortals sore depressed.

And in an ardent lover's tone,
They spoke of one who was all our own—
Whose eyes as blue as the heaven's dome
Looked oft at the Whispering Leaves.
The fair maid whom our hearts enshrined,
Whose loving arms around us twined,
And bound us, as only love can bind,
We laid 'neath the Whispering Leaves.

I am swinging again in my hammock old,
And I look away to the hills of gold,
Where the reaper binds with ruthless hold,
And gathers the golden sheaves.
'Tis meet that ripened grain should fall,
And the Heavenly Father watches all;
But o'er our lives there hangs a pall—
She sleeps 'neath the Whispering Leaves.

Vermont, Ills.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

WINTERING.

Plan of Preparing Bees to Pass the Winter Safely.

Written for the American Bee Journal
BY A. M. VANNOY.

In the bee-papers and apiarian departments of several agricultural papers, I see enquiries as to the best methods of wintering bees. This depends somewhat upon latitude (or climate); on these wind-swept prairies of Iowa, Northern Illinois and Nebraska, cellaring of some kind is almost indispensable to success. For the last four years I have kept from 10 to 20 colonies as follows:

After selecting a location where water will not rise or stand, I drive four posts into the ground, all in a line, the two outside ones 16 feet apart, and the other two equal distances between. Eight feet from, and exactly parallel with this line, I drive four others in line also; these posts are all stout ones, and are driven in the ground 2 feet or more, leaving 2 feet above the ground. To these posts on the outside of the line, I nail barn-boards, 16 feet long, and 1 foot wide, two to each line, making a solid board fence 2 feet high; the ends are closed by boards of the same width, and half the length, one post being sufficient between the end posts of the sides.

After all is boarded up as before, I dig two spade depths and throw the dirt outside and against the boards, for an embankment. After I have dug all out to within 4 inches of the board wall, and two spades' depth, I lay two poles (fence-rails will do) about 16 inches apart, on each side of the bottom of the pit, and place the hives on them (the poles), as close together as I can get them; of Langstroth hives I can place a double tier on either side.

After all the hives are in, I take 2x6 inch scantling, 8 feet long, and spike the ends fast to the middle posts of the side lines, and parallel with the end wall, and all on a level with the upper edge of the boards in the side and end walls. I cover the whole with 16-foot barn-boards, without breaking joints, being careful to leave no cracks large enough through which mice can enter. Then I cover the whole top with two moderate loads of straw, hay or prairie grass. I use sorghum *bagasse*, as I have plenty of it handy. This gives the required ventilation, and keeps off sudden changes.

I used to think that some kind of a ventilator was a necessity, and last winter, after putting away 16 colonies in the hole, it kept so warm that I tunneled into the hole, and put in 4-inch tile, connected with a 6x6 inch box 4

feet long, and 2 feet above ground (upper end), at each end of the pit or hole, as a ventilator. As I generally watch the bees pretty close for awhile, I went in and examined the hives about three weeks after I put them in, and found that a gopher had utilized the ventilator to store waste dirt; but the ground outside was frozen so hard that I could do nothing for them, so, after seeing that the bees were all right, I just left them until March 25, when I opened the hole, and found them all right, with not over a pint of dead bees in the entire lot. The bees were put in the first week in December, which is about the right time to put them in, in this latitude and climate.

I am satisfied that if these directions are strictly followed, success will attend every effort; and while it requires some manual labor, it has the advantage of scarcely any expenditure of money, as the lumber can be taken out in the spring almost as good as new, and can be used over and over again for the same purpose.

I have never kept over 20 colonies together, but I can see no good reason why 50 may not be kept as well, only requiring the more room. My bees always come out "plump and fat," and apparently vigorous. I always try to select a fine, warm day to open the pit, and if chilly at night, I put the hives in again, with only the boards for a covering, unless bad weather ensues, when I again put on the *bagasse* for a day or two, or until the next warm day, when I put the bees out to stay.

My bees have not been troubled with spring dwindling to amount to anything, and I believe that musty, moldy cellars have more to do with it than damp combs and soured honey.

Hedrick, Iowa.

BLACK HONEY.

A Peculiar Kind of Nectar Gathered by the Bees.

Written for the American Bee Journal

BY WM. S. BARCLAY.

From Sept. 7 for about two weeks, my bees gathered a substance somewhat the color of thin ink. I have no doubt that it was honey-dew, but the source whence it was obtained, is what mystifies me. I have never failed to trace my bees to where they gathered their stores—that is, when they were working freely; but in this instance I failed entirely.

They worked as freely as I have ever known them to do on buckwheat, and brought in fully as large loads as they do from that plant; but the reason they could not be traced was, that when they left their hives, they arose high in the air before they struck their course, and as we have a high hill immediately back of our village, over which they flew, it was impossible for me to again obtain their direction of flight.

This black honey was quite thick, and after standing a short time, it precipitated a black, sandy sediment, which, when shaken up, gave it a grainy appearance that was very repulsive. The taste was sharp and disagreeable, while it gave forth an odor which was anything but pleasing.

While gathering the substance, the bees built the whitest of comb in which to deposit, and I was greatly surprised to find, in eating it, that this comb was as tough as comb that had been bred in three or four times; but what astonished me the most, was that this honey was sealed up almost as rapidly as it was gathered. I think that it was done more rapidly than I have ever known honey to be sealed before. The appearance which it presented when placed in a comb partly filled with sealed white honey, was astonishing, and would have to be seen to be fully realized.

Now the question is, will this honey be safe food on which to winter bees? I know that some of our prominent bee-keepers take the position, "that any fully sealed honey is proper food for winter," but I fear to take the risk. I have left a portion of it with some of my colonies, in their combs in the body of the hive, but I removed all of it that was deposited as surplus, preferring to feed it in the spring when the bees would have daily flights, and when I would apprehend no danger.

I have written to Mr. Chas. F. Muth, of Cincinnati, in relation to this honey, and shall send him a sample of it when I hear from him. I should also like to have Mr. Newman and Prof. Cook see it, and have their opinions of it.

The National Flower.

In relation to our national flower, I would say that my choice most determinedly is the "golden-rod;" and this in the face of the fact that bees in our vicinity do not gather a particle of honey from its beautiful bloom; but this may be stated with equal truth of the spider-plant. For fall honey give me, first, sweet clover, and then the motherwort and catnip.

For its adaptation to all soils and climates; for its beauty, as it waves its golden plumes over hillside and valley; for its tenacity of life; but more, for the beautiful interpretation of its cognomen, give me golden-rod in preference to all other flowers, as emblematic of our now united and glorious nation.

Beaver, Pa.

SECTION-CASES.

Freeing Section-Cases from Bees while on the Hives.

Written for the American Bee Journal

BY FRANK COVERDALE.

On page 636, Mr. J. M. Burtch asks how to get bees out of the section-cases before removing them to the honey-house, or from the hives. Very truly it is quite a task, when it has to be done as Mr. B. says that he has tried, or in the way that well-nigh all of our progressive apiarists are continually practicing, and most especially is it hard to accomplish it with the Italians, for they are so docile, and prone to hang and stick to the comb.

Getting bees out of the surplus cases, has also caused me a great deal of bother and vexation, especially when I have to drive them through a perforated wood-zinc honey-board. I have spent many hours, thinking out a way by which we could prevent this hardship, and the best way I know of at present is this:

Take a board ½ or ⅝ of an inch thick, saw it so as to just fit the section-cases; after which a strip is nailed all the way around it. These strips should, when nailed, project ⅜ of an inch higher than the board, which will leave a bee-space on top, so that the section-cases will fit on this the same as on the hive with the bee-space.

After this is done, bore a ¾-inch auger-hole near the rear, or almost anywhere will do, though it will be better, perhaps, to have the hole over the openings of the sections.

Make a wire-screen cone, about 1½ inches long, with the top to just fit the auger-hole, and the bottom so that a bee can just creep easily down through. Now go to the hive that has one or two cases of capped honey, that you wish to remove, raise up the top cases, and slide in the board; drop the little wire-cloth cone down in the hole that you bored—small end downward; let down the case, and the bees will soon become uneasy, for they have neither queen nor brood, and down through the cone they will go, until every bee is out of the way.

Then how pleasant it is to carry the bee-deserted cases to the honey-room. It scarcely can be imagined how glad I felt the first trial, to return and find a case of honey without a bee on it.

This will save much valuable time, for one can adjust one of these boards very much quicker than to pull and smoke the bees down, blowing fire and ashes on the bees and nice comb honey.

The boards can be made very cheaply, and I should think that a man

could make at least 50 in one day. Place one of these boards on top of the cases, and on top of the board an upper story of brood, and the bees will desert it to such an extent that they will leave it in a starving condition, or, in other words, they will leave the brood to take care of itself. Always leave surplus room below the board while honey is being gathered, when the honey is ready to take off on top of it.

We have just passed through a fair season for the honey-producer in this location. My bees are in good condition for winter quarters. My yield per colony, spring count, is 208⅝ pounds—all comb honey except 600 pounds.

Welton, Iowa.

UNWIRED COMBS.

Securing Good Combs Without Wiring—Empty Combs.

Written for the American Bee Journal

BY G. W. DEMAREE.

My answers to Queries in the AMERICAN BEE JOURNAL have brought me a request to write an article on this subject. To the practical bee-keeper there are a number of objections to wired combs, but the greatest of these is the cost and high order of skill necessary to procure good wired combs. To perforate the frame stuff accurately, and draw the wire in the frames so as to be tight, without springing up the bottom-bar, must be done by one who is capable of doing a nice mechanical job, and this is more than a majority of practical bee-keepers are supposed to be able to do. It is therefore a desideratum on the part of the generality of bee-keepers, to have a simpler and cheaper way to procure good combs for brood and extracting purposes.

Perhaps it is not generally understood what an advantage it is in obtaining a large yield of honey, to have on hand a bountiful supply of good combs, to supply every need of the apiary. I have sometimes remarked that the season must be poor indeed if I fail to get a paying crop of honey, taken with the extractor, when supplied with plenty of empty combs.

The first requisite to success in obtaining good combs without wire, is a good article of foundation, and this I have not failed to find in Dadant's manufacture, five or six sheets to the pound of wax. Let the sheets be well fixed to the top-bars, and hang clear in the frames, with a space of ¼ of an inch at the ends, and a half inch at the bottom.

My method of fastening the sheets to the top-bars of the frames, is to press the edge of the sheet fast to the top-bar with a putty-knife, and afterward run some melted wax (with a small spoon) on the opposite side from the lap; this prevents the tendency of the sheet to "peel off" when weighted by the bees. I use no mixture for this purpose — as wax can be hardened sufficiently, by pouring it, while hot, in cold water. The bees object to any foreign substance in wax. The frames thus arranged are placed in tiering supers or cases ready for use.

When the honey season opens in the spring, I place a super of empty combs on each hive to be worked for extracting, and as soon as the combs are pretty well filled with new honey, the case is lifted, and a case filled with the prepared sheets of foundation is placed under it. If the season is good, the foundation will be drawn out in a few days, and may be used to hive swarms on. By proceeding in this way, all the combs needed can be obtained.

If there is any loss to the colonies while drawing out the foundation, it is more than made up by the swarms that profit by the ready-drawn combs. If I do not have empty combs to start with, I use the foundation in their place, as the best thing that I can do.

When a crop of comb honey exclusively, is being taken, it does not pay to set the bees at work drawing out foundation, for in every trial I have made in that direction, the bees have neglected the section-cases in their eagerness to fill the sheets with honey as fast as the cells are drawn out. The plan is only practicable when taking honey with the extractor. Still, if I was producing comb honey exclusively, I would employ a number of colonies to draw out all the combs needed for the swarms.

It should be known, however, that full sheets of foundation fastened to the top-bars, as described above, may be placed alternately with drawn combs in the brood-chamber, and large swarms may be hived upon them with perfect safety. I have found, by experimenting with sheets of foundation, that they can be made strong enough to bear large swarms, by simply cutting them into two pieces, and lapping the edges together about ¼ of an inch, and welding them together by pressing a putty-knife on either side, thus forming a rib in the centre of the sheet of sufficient strength to prevent the sheet from sagging.

A piece of fine wire may be inserted between the lapping edges, which will add greatly to the strength of the sheet. I have found that the rib is not in the way of the bees, as they complete the comb right on over it.

How to preserve empty combs when not in use, was once a serious problem with me. The sulphur remedy was never satisfactory in my practice—it is a filthy, disgusting remedy. My plan is this:

In the early spring, the combs having been subjected to winter freezing, I pack them in bales of ten combs each, inserting a strip of wood at the ends between the combs, to hold them apart, to admit the air between them so as to prevent dampness and mold. The bales of combs are bound together with wrapping-twine to facilitate the handling. Each bale of ten combs is slipped into a cotton bag, and the mouth of the bag is securely tied. They are stored away in any dry place where mice cannot get at them. By this plan, empty combs can be kept free from moth depredation for an indefinite time.

It is highly probable that nice, dry combs would have no tendency to mold if only a sheet of paper is placed between them, in place of the strips of wood. The latter, however, is of no consequence to me, as I use the end-pieces of frame-stuff.

Christiansburg, Ky.

PURE HONEY.

It is Rectified, and Not Digested, Nectar.

Written for the American Bee Journal

BY A. H. DUNLAP.

I am now nearly 70 years of age. I well remember watching my bees manipulate their wax, building cells and capping them when full of ripe, digested (or something else) honey. I also noticed that in the evening, a great many cells of the new comb were full, but were empty in the morning; this would be repeated for several nights before the bees capped them over; what they were doing with it, I never so well understood as I think that I do now—they were either "ripening" it, "digesting" it, or doing something else with it. Now this "something else" is what I understand is asked for on page 648.

I never liked the word "ripe," as applied to honey, as its proper use is to express the condition of vegetation after growth and development into its perfected state—it is then "ripe." As for "digested" honey—oo! oo! ough! When I first saw this word applied to honey, how it made my stomach squirm. That just won't do!

Now let us have that "more appropriate word," and call it "rectified" honey; and if any one wants to know what rectified honey is, just say it is "pure honey." If anybody wants to know how it is rectified, say, "I don't know, the bees did it."

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Dec. 4-6.—International, at Brantford, Ont., Canada. R. F. Holtermann, Sec., Romney, Ont.

Dec. 16, 17.—Northern Illinois, at Rockford, Ills. D. A. Fuller, Sec., Cherry Valley, Ills.

1890.

May 2.—Susquehanna Co., at Hopbottom, Pa. H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Value of a Good Bee-Paper.

Every bee-keeper in the United States should subscribe for the American Bee Journal. It has been of great help to me. I have taken 1,450 pounds of comb honey from 8 colonies, spring count, and increased them to 20, by natural swarming. I am sure that I could not have done so well if I had not read the American Bee Journal. I try to keep my bees pure Italians, for I believe that they are the best bees to have.

Wm. Elliott.

Plainview, Minn., Oct. 4, 1889.

Digested Nectar Not the Term.

I have been watching with great interest the controversies of late, in regard to honey being "digested nectar." I have so far taken side with the opposition, and I still oppose calling anything in the line of eatables—especially the product of our dear little bees, and fit for the king's table—*digested!* My digestive organs propose to do the digestive work for themselves. I am not a scientist, and I will readily accept Prof. Cook's theory, but I beg the learned Professor (and I think that most of the bee-keepers will join in with me) to give us a more *digestive* name for the "digested nectar." Friedmann Greiner.

Naples, N. Y., Oct. 15, 1889.

Something for Bees to Eat.

On page 108, under the heading of "Wild Bees," Mr. O. C. Becker asks a question. I would like to ask a similar one, viz: Is there anything that can be compounded, that bees will be more greedy for, and eat better, than honey? Will some one please answer?

Joel Flint.

Razorville, Me., Oct. 16, 1889.

Southwestern Michigan Fair.

We had a very busy time in our corner at the Southwestern Michigan fair; it seemed almost like a bee-convention. There were bee-keepers here from every direction, reaching out from 20 to 30 miles. I had no idea that we had so many extensive bee-keepers so near us here. As a general thing they reported only from one-half to two-thirds of a crop of honey, and all felt rather poor. We had a very nice display at the fair. I had a colony of Italian bees on exhibition, a frame containing a few bees with a queen, and also a frame of mostly drone-bees; the last two attracted much attention—the most of the time some one was trying to find the queen. I took the first premium on comb honey, on extracted honey, and also on Italian bees.

Sylvester Pierce.

Three Rivers, Mich., Oct. 14, 1889.

Raising Funds for the "Union."

From 7 colonies I obtained about 550 pounds of about the finest white clover honey that I ever saw. I could have had more if I could have had time to manage my bees to the best advantage. Would it not be just and right to receeive say from 3 to 5 cents per colony, as funds for the Bee-Keepers' Union, instead of taxing every member $1.00? I have 9 colonies, and think that it is unjust to ask me for $1.00, while the specialist has his hundreds of colonies, and only pays $1.00. I only speak of this as a matter for consideration, and not as a grumbler.

E. M. Coombs.

Memphis, Ind., Oct. 21, 1889.

[The smallest apiarist can well afford to pay a dollar to sustain an organization which defends the pursuit. The more extensive ones can pay five or ten dollars as donations. We do not favor the method you mention, because it looks too much like a "tax," and would require too much book-keeping. Others may have different views, and we like to have them expressed and discussed.—Ed.]

Cyprians and Golden-Rod.

I am well pleased with the amount of honey that I got this year. I would not give one cent for all the golden-rod in the town of Madison. The Cyprians take the lead in my apiary, and if I had elbow-room, I would keep them altogether. Mine are the "Simon-pure" variety.

Madison, Wis. D. D. Danhier.

Few Bees Work on Golden-Rod.

I have been watching the golden-rod here, and have seen but few bees at work on it. The fall crop of honey is a failure in this locality. All the honey I have taken this season, is very dark, while one apiarist within two miles of me, got very nice, light honey. W. H. Martin.

Falls City, Nebr., Oct. 16, 1889.

One of the Asters.

Will you be kind enough to give the proper, or botanical, name of the enclosed plant? It grows in great abundance through all this part of the country, and grows from 3 to 4 feet high. It blooms very profusely, beginning in September, and continues through October. It is one of our best fall honey-plants, and is known here as "iron-weed." It takes this name from the hardiness of the stalks, when dead and dry. E. W. Lyles.

Charlottle, N. C., Oct. 9, 1889.

[It is one of the numerous family of asters (*aster tradescanti*), and is an excellent honey-producer.—Ed.]

Golden-Rod—Wet Season.

In this locality there are two varieties of golden-rod—one growing on high ground, with a long, feathery flower; but this one does not produce honey; the other grows in swamps, and along ditches, with a straight stem, and branches out with flowers in clusters on the top. The latter is the best fall flower we have. My bees are near a swamp of about ten acres of this variety, and about Sept. 1, my 55 colonies did not average 2 pounds apiece; but for about 10 days there was nice, warm weather, and my bees worked on it from sunrise until sunset, averaging about 25 pounds apiece, with 25 colonies of other parties near it, too.

We have passed through the wettest summer and fall ever known in this section of the country. There was abundance of bloom, but too wet for the bees to get out of the hives. I had 1,200 pounds of surplus honey from poplar and clover, nearly all of it being comb honey. There was an abundance of asters, but too wet and cold for bees to work on it. The fall of 1887 the bees gathered the finest crop of aster honey that I ever saw. Golden-rod honey seems to be darker, and has a stronger honey-taste. H. P. Faucett.

Dilworthtown, Pa., Oct. 21, 1889.

Results of the Season.

I prepared 36 colonies last fall for winter, with 5 inches of sawdust over the frames, and all came through, with 2 rather weak ones. They swarmed a great deal, but I doubled up and hived back some, so I now have 70 colonies, all in good condition, with the brood-chambers full of the finest of white clover honey for winter. The average per colony was 70 pounds of honey, spring count, all in one and two pound sections, but mostly in one-pounds. I have no fall honey. There are acres of golden-rod here, and bees worked on it real well for 2 or 3 days, then left it. I have never known bees here to work on golden-rod any better than they have this year. I have kept some bees almost all the time since 1855.

J. E. Walker.

Clarksville, Mo., Oct. 14, 1889.

The Season's Results.

I have 17 colonies of bees, and have taken 500 pounds of honey from them this year. The American Bee Journal has been worth $25 to me the past season.

Albert Mallery.

Portville, N. Y., Oct. 7, 1889.

Robber-Flies and Bees.

I send a sample of something that eats our honey-bees; it resembles a bumble-bee, but it has no sting. They are numerous, and eat an immense amount of bees. Please tell what it is, in the American Bee Journal. J. C. Cooper.

Mt. Pleasant, Tenn., Oct. 16, 1889.

[The insect sent by Mr. Cooper is *Mallophora orcina*. It is fullly illustrated and described in my Manual, on page 417, last edition. This is one of the robber-flies. It is widely distributed in the South, and is a serious enemy of the honey-bee. The illustration in the Manual tells the whole story. It is light yellow in color.—A. J. Cook.]

Profitable Season—Carniolans.

This has not been a very profitable season to bee-keepers in this vicinity. The trouble was too much cold, wet weather. I started in the spring with 5 colonies, and increased them to 16, taking 200 pounds of comb honey. Bees are all in good condition for winter. I obtained a Carniolan queen last May, and my experience with them is that they are "hustlers," when compared with my hybrids. They are not only good workers, but very gentle. J. E. Turner.

Woodington, O., Oct. 22, 1889.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

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Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00...	
and Gleanings in Bee-Culture	2 00....	1 75
Bee-Keepers' Guide	1 50....	1 40
Bee-Keepers' Review	1 50....	1 40
The Apiculturist	1 75....	1 65
Bee-Keepers' Advance	1 50....	1 40
Canadian Bee Journal	2 00....	1 80
Canadian Honey Producer	1 40....	1 30
The 8 above-named papers	5 65....	5 00
and Langstroth Revised (Dadant)	3 00....	2 75
Cook's Manual (**old edition**)	2 25....	2 00
Doolittle on Queen-Rearing	2 00....	1 75
Bees and Honey (Newman)	2 00....	1 75
Binder for Am. Bee Journal	1 60....	1 50
Dzierzon's Bee-Book (cloth)	3 00....	2 00
Root's A B C of Bee-Culture	2 25....	2 10
Farmer's Account Book	4 00....	2 20
Western World Guide	1 50....	1 30
Heddon's book, "Success,"	1 50..	1 40
A Year Among the Bees	1 75....	1 50
Convention Hand-Book	1 50....	1 30
Weekly Inter-Ocean	2 00....	1 75
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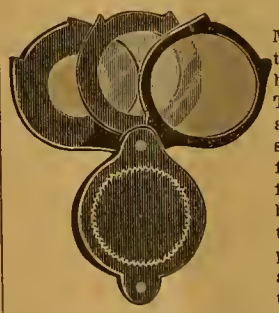
History of National Society	1 50....	1 25
American Poultry Journal	2 25....	1 50

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.



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A Handsome Present.—As the convention season is now on hand, we will make every subscriber this good offer: Go and call on your neighbor who keeps bees and ought to take the BEE JOURNAL. Get his subscription and one dollar for a year; send it to us, and we will *present* you a copy of the Convention Hand-Book, by mail, postpaid, for your trouble. Here is a grand chance for all to get a valuable book without costing them a cent!

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Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Hastings' Perfection Feeder.—This excellent Feeder will hold a quart, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Always Mention your Post Office County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Having a Few extra sets of the AMERICAN BEE JOURNAL for the years 1887 and 1888, we will supply both these years, and 1889 and 1890, for $3.00, until all are sold. Or we will send 1888, 1889 and 1890 for $2.50, all by mail, postage paid. These are very valuable, and those who have not yet read them should lose no time in securing them.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; sent by mail, add 1 cent each for postage.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

Honey and Beeswax Market.

KANSAS CITY.

HONEY.—White clover and linden 1-lbs., fancy, 14@15c.; good, 13@14c.; dark, 12c; the same in 2-lbs., 13@14c.; dark, 12c. Extracted, white, 8c.; dark, 7c. Demand is good. Sales large for this time of year.
Sep. 27. HAMBLIN & BEARSS, 514 Walnut St.

PHILADELPHIA.

HONEY.—That in the comb is now arriving and the demand is increasing accordingly. The outlook is still favorable for good prices for fancy honey.—We quote fancy honey in neat crates as follows: 1-lbs., white, 17@18c.; 2-lbs., 14@15c.; buckwheat 1-lbs. 12@13c.; 2-lbs., 10@11c. Off grades of all kinds generally 1 to 2 cts. less. Extracted, white clover, 8½c.; orange blossom, 7½@8c.; off grades, per gal., 60@70c
BEESWAX.—23½@24½c.
Sep. 5. WALKER & McCORD, 32 & 34 S. Water St.

DENVER.

HONEY.—We quote: In one-lb. sections, 16@18c.; off colors, 14@16c. Extracted, 7@8c.
BEESWAX.—20@25c.
Sep. 20. J. M. CLARK COM. CO., 1421 15th St.

NEW YORK.

HONEY.—Extracted, white clover, basswood, orange blossom and California, 8c.; buckwheat, 6 cts.; common Southern, 65@70c. per gallon. Demand is good. Comb honey, fancy white 1-lbs., 16c.; 2-lbs., 14c. Fair 1-lbs., 14c; 2-lbs., 11@12c. Buckwheat, 1-lbs., 11@12c; 2-lbs., 10@11c. Demand very good for fancy white 1-lbs., and buckwheat 1-lbs.
BEESWAX.—22c.
Oct. 2. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—It is arriving freely and we note some little accumulation, but all will be wanted later on. White clover 1-lbs., according to style of package and appearance, 13@15c. Dark 1-lbs., 10@11c.; 2 lbs., 8@9c. Extracted is in light demand values ranging from 6@8c., depending upon the style of package, quality, etc.
BEESWAX.—25c.
Sep. 21. S. T. FISH & CO., 189 S. Water St.

CHICAGO.

HONEY.—It is selling slowly yet, but with colder weather we look for more active trade. Market is well supplied with honey, it being in many hands. In lots it cannot be sold at over 13@14c., and in cases even less, if not in first-class condition. Extracted, 6@8c., white clover and basswood, in kegs and barrels, 7c.
BEESWAX.—25c. R. A. BURNETT.
Sep. 10. 161 South Water St.

NEW YORK.

HONEY.—It is in good demand. We quote: Fancy white 1-lbs., 15@16c.; 2-lbs., 13@14c. Fair white 1-lbs., 13@14c.; 2-lbs., 11@12c. Buckwheat 1-lbs. 10@11c.; 2-lbs., 9½@10c. Extracted, basswood and clover, 8c.; orange blossom, 8½c.; buckwheat, 6c.; California, 7½c.; Southern, 72½c. per gallon.
HILDRETH BROS. & SEGELKEN,
Oct. 11. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote: Fancy 1-lbs., 16@17c.; fair, 14@15c.; 2-lbs., 15@16c. Extracted, 8@9c. Market is in fairly good condition, but we are getting some of the odd grades from Western New York, Michigan and Wisconsin, and it is not arriving in very good condition, making it hard to sell.
BEESWAX.—None on hand.
Oct. 21. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—A quiet but steady demand for choice comb, at 14@16c. Fair demand for extracted at 5@8c
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Oct. 21. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—Receipts are very light, and demand is increasing. We quote: White 1-lbs. 13@14c.; dark, 10@12c.; white 2-lbs. 12@13c.; dark, 10@12c. Extracted, white, 7@8c.; dark, 6c.
BEESWAX.—None in market.
Oct. 12. CLEMONS, CLOON & CO., cor 4th & Walnut.

MILWAUKEE.

HONEY.—New crop is coming in and of very fine quality. Demand is fair and values easy. Choice white 1-lbs., 14@15c.; 2nd quality 1-lbs., 12½@14c.; old 1-lbs., 10@12c. Extracted, white, in tins and pails, 8@8½c.; in barrels and kegs, 7@8c.
BEESWAX.—22@25c.
Sep. 5. A. V. BISHOP, 142 W. Water St.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

Advertisements.

Honey Almanac for 1890.

JUST the thing needed to create a **demand** for HONEY at home. Bee-keepers should scatter it freely. It shows the uses of Honey for Medicine, Eating, Drinking, Cooking, for making Cosmetics, Vinegar, etc.; also uses of BEESWAX. Price, 5 cts.; 100 for $2.50; 500 for $10.00; 1,000 for $15.00. The Bee-Keeper's CARD will be printed on the first page without extra cost, when 100 or more are ordered at one time. Address,

THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL.

THOROUGHBRED
CHESTER WHITE PIGS!

THERE is perhaps no other breed of hogs the reputation of which, throughout our whole country stands as high as the CHESTER WHITES. They have short Heads, short Legs, short Hams, good Shoulders, and are broad in the Chest, giving them good Lungs. The whole Body is round, and of a nice, plump, mellow appearance; the Carcass is deep; the Back is perfectly straight; Hams and Shoulders very broad, with fine bone; also fine Hair and a smooth Skin; the Head is broad but small.

They are invariably White with lopped ears. They keep easily, will fatten at any age, and are very quiet, so much so as not to be running around, getting into mischief, and in consequence of this, with ordinary attention that pigs get, they thrive very rapidly, weighing from 400 to 700 lbs. at from 12 to 14 months old, and frequently killed weighing as high as 1,000 pounds of dressed pork.

PIGS will be selected in Pairs, not akin, and carefully boxed and delivered to the express company, and their safe arrival insured at reasonable prices. Address,

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39A10t 189 So. Water St., CHICAGO, ILL.
Mention the American Bee Journal.

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FOR SALE.

WE have a Large Quantity of CHOICE WHITE **EXTRACTED HONEY** For Sale, in kegs holding about **200 pounds** each, which we will deliver on board the cars at **8 Cents** per pound. Orders are solicited.

THOS. G. NEWMAN & SON,
623 & 925 West Madison-Street. - CHICAGO, ILLS.

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Mention the American Bee Journal.

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Packing Bees for Winter.

THIS consists of small pieces about the size of a pea, and is an excellent thing for packing Bees in winter. Prices: In original packages of 100 pounds, $4.00, measuring 14 bushels.; smaller quantities, 10 cents per lb.; or a seamless sack, containing 15 lbs., $1.00.

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Read what J. I. PARENT, of CHARLTON, N.Y., says—"We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 brood frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this Saw. It will do all you say it will." Catalogue and Price-List Free. Address, W. F. & JOHN BARNES,
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Friends, If you are in anyway interested in **BEES or HONEY** we will with pleasure send a sample copy of the **SEMI-MONTHLY GLEANINGS IN BEE-CULTURE,** with a descriptive price-list of latest improvements in Hives, Honey-Extractors, Comb Foundation, Section Honey-Boxes, all books and journals, and everything pertaining to Bee-Culture. *Nothing Patented.* Simply send your address *plainly written*, to **A. I. ROOT, Medina, O.**
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Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

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FOR HONEY.

THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.
Prices are as follows:

To hold 1 pound of honey, per dozen,			**$1.60**
"	2 pounds	"	**2.00**
"	3 "	"	**2.50**

THOS. G. NEWMAN & SON,

IS IT A SWINDLE?

IN September the "Ohio Farmer" contained the following paragraph:

"I wish you to expose through the columns of the "Ohio Farmer," a swindle, which is the "Ohio Swine Journal," published at Daytoo, Ohio." G. W. KEMPER.

Is the **Ohio Swine Journal** a swindle? Well, we think the publisher of the "Ohio Farmer," and the man Kemper, will come to the conclusion that it is *not* so much of a Swindle after all, by the time they get through with our Suits for Libel.

Send your name and address for a free Sample Copy. Is it a good paper? We don't brag, but let our subscribers do the talking about our paper. They say it is the

BEST and CHEAPEST

SWINE JOURNAL

published. We will say this much: Every Farmer, Breeder and Feeder of **HOGS**, ought to read it.

☞ You can get it from **now until January, 1891**, for **only 25 Cents.** Published Monthly. Address,

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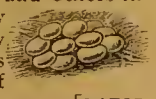
NO SICKNESS AMONG THE FOWLS.
A WORD TO FARMERS, Farmers' Wives, Sons, Daughters, and others interested in Poultry



A 60 ACRE Poultry Farm that yields a clear profit of $1,500 a year. [BATOR.
81 CHICKS OUT OF 100 EGGS WITH INCU-
RAISING BROILERS. FOOD FOR CHICKS.
TURKEY RAISING. KEEPING EGGS.
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KEEPING POULTRY ON A VILLAGE LOT.
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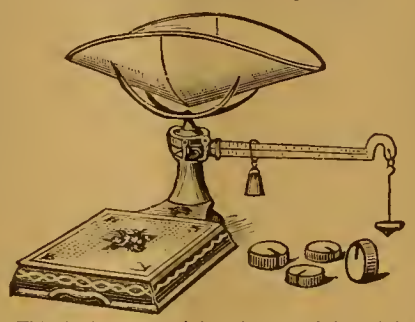
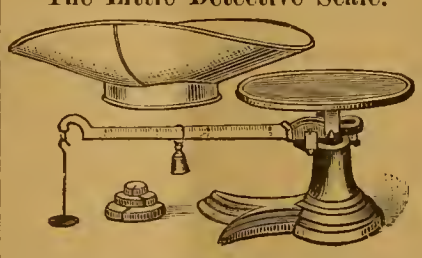
Useful Scales

The Union or Family Scale.



This Scale has steel bearings, and it weighs from ½-ounce to 240 pounds. Price, with a Single Brass Beam, as shown in the illustration, $3.00. With Double Beam for taking the tare, $3.50.

The Little Detective Scale.



This little Scale is made with steel bearings, and a brass Beam, and will weigh accurately ¼-ounce to 25 pounds. It supplies the great demand for a Housekeeper's Scale. Prices:

Single beam, no scoop	.....	$2.00.
" " tin "	.....	2.50.
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☞ All orders filled promptly.

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WE will allow a **heavy discount** on the Orders received this **Fall** and **Winter.** Estimates furnished, and correspondence solicited. New **Price-List** ready Dec. 1st,

A. F. STAUFFER & CO.,
40Etf STERLING, Whiteside Co., ILL.
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PRICES REDUCED.

UNTESTED QUEENS, 65 cents.—10 for $6.00. Select Tested, $1.50. One and 2 cent Stamps taken when Money Orders cannot be had. Make Money Orders payable at Nicholasville. Can send by Return Mail.

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—OFFERS GREATER—

Inducements to Settlers,

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SHE wants Vegetable and Fruit Farmers, Wood-Workers, Cattle and Poultry Breeders, Grain and Grass Farmers.

Its Timber and Mineral resources are unsurpassed. Its Climate the finest in the World. This land of almost perpetual flowers, excels in Bee-Keeping, in Poultry-Raising, and in Fruit-Culture.

☞ For full particulars, send for specimen copy of

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GET a Bottle of our Genuine Indelible Ink, and a beautiful **INITIAL STAMP** (like sample) for marking your linens, sent postpaid for only 25c Lady agents wanted everywhere to handle a specialty in our line. Write immediately—$3 to $10 a day, easily made. Address,

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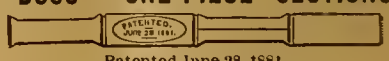

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WILL furnish you, the coming season, ONE PIECE SECTIONS as cheap as the cheapest.
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FACTORY OF

BEE HIVES, &C.

Early Nuclei & Italian Queens.

☞ Tenth annual Catalogue now ready.

5Ctf **PAUL L. VIALLON.** Bayou Goula, La.
Mention the American Bee Journal.

POULTRY. IF you want to see one of the best Poultry Magazines that is published, send 6 cents to ROBT. A. BRADEN, Dayton, Ohio, for a Sample Copy of the OHIO POULTRY JOURNAL.
43A3t ☞ It is Grand!
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THE AMERICAN BEE JOURNAL CIRCULATES ALL OVER THE WORLD
PUBLISHED BY THOS. G. NEWMAN & SON, CHICAGO, ILL.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Nov. 9, 1889. No. 45.

EDITORIAL BUZZINGS.

The golden-rod, the golden-rod,
The flower above all others
To wave its plumes from sea to sea,
O'er English-speaking brothers.

This is my vote for the national flower.

EUGENE SECOR.

Doolittle on Queen-Rearing.

Queens can be reared in the upper stories of hives used for extracted honey, where a queen-excluding honey-board is used, which are as good, if not superior, to Queens reared by any other process; and that, too, while the old Queen is doing duty below, just the same as though Queens were not being reared above. This is a fact, though it is not generally known.

By employing these methods, colonies are never queenless, and no queenless bees need be bothered with, by uniting them with other colonies, or otherwise.

If you desire to know how this can be done—how to have Queens fertilized in upper stories, while the old Queen is laying below—how you may *safely introduce* any Queen, at any time of the year when bees cay fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.: or, in fact everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing;" a book of 180 pages, which is nicely bound in cloth, and as interesting as any story. Price, $1.00.

An edition in strong paper covers is issued for premiums. It will be mailed as a present to any one who will send us *two* new subscribers to either of our JOURNALS.

Crooked Statistics.

Prof. A. J. Cook gives an experience, in *Gleanings*, showing the carelessness with which many statistics are gathered.

A report from the Department of Agriculture stated that the chinch-bug had done serious damage in five counties in Michigan. Prof. Cook did not believe this, as in all his collecting he had never taken a chinch-bug in the State. So he wrote to the Department and learned the names of the reporters, and immediately addressed a letter to each, as follows:

Do you know the chinch-bug? Do you personally know that it has ever worked in your county? Why did you report ravages from this insect in your county to the Department of Agriculture?

Answers were received from three persons only. They reported that they did not know the insect, that they had no personal knowledge on the subject, and did not know that they had so reported. What are statistics worth if we are to have such reports.—*Rural New Yorker.*

International Bee-Association.

Mr. R. Holtermann, the efficient Secretary, has sent us the following concerning the coming convention:

The programme for the American International Bee-Association, which is to meet at Brantford, Ontario, Canada, Dec. 4 to 6, next, is not yet complete. However from the following it will be seen that every effort has been made to have a good one. The first session will be at 2 p.m. of the 4th.

Bee-Keeping an Occupation for Women—Miss H. F. Buller, Campbellford, Ont.

Cellar *vs.* Out-Door Wintering—R. McKnight, Owen Sound, Ont.

Shipping Queens—F. H. Macpherson, Beeton, Ont.

Disposal of the Honey Crop—Thomas G. Newman, Chicago, Ills.

Cellar Wintering—S. T. Pettit, Belmont, Ont.

Riding Hobby-Horses—Bee-keeping a recreation from other pursuits, and an antidote for disease—E. R. Root, Medina, O.

Alimentary System or Apparatus of the Honey-Bee—Prof. A. J. Cook, Agricultural College, Mich.

S. Corneil, Lindsay, Ont.—Subject not given.

The President will give his annual address which, doubtless, will be amusing and instructive.

Reduced rates, at least one and one-third fare for return trip, may be secured on the Grand Trunk and Canadian Pacific railway; the latter tickets must be purchased to and from Galt or Woodstock. For further particulars, apply to the Secretary.

Remember you must have a certificate when purchasing your ticket for Brantford on the Grand Trunk railway, or Galt or Woodstock on the Canadian Pacific railway.

Reduced hotel rates ($1.50) may be secured at the Kirby House. The Commercial Hotel also, close to the place of meeting, is a good one-dollar house.

The "International" Convention has a strong claim upon every apiarist, and the attendance will be very large, no doubt. The Secretary is doing all he can to make ample arrangements for the meeting, and we hope that it will prove to be one of the most profitable Conventions ever held.

Is Bee-Culture on the Increase?

Mrs. L. Harrison gives her conclusions on the above question in the *Prairie Farmer* of last week, in these words:

This is evident from the number of new faces seen at the convention, and also in the presence of many ladies who appeared to take an interest in the discussions. Father Langstroth, though absent, was not forgotten, as was evident from the many expressions of love and affection for him; as also of appreciation of the great value of his invention, the movable frame.

Drone and Queen Traps.

On page 651, Mr. J. N. Edsall, Unadilla, Nebr., makes this statement and asks:

I placed an Alley drone and queen trap on a hive this season, but the swarm left me. Why? When I opened the hive I found three young queens on the combs, and half a dozen queen-cells unhatched. I got no honey from that outfit.

We referred the matter to Mr. Alley, who replies thus:

The trouble was, without doubt, an imperfection in the metal. In some of our traps the metal was cut just a little too short, and the queen, in some cases, managed to get out. This I know to be a fact, as I had a queen which made her escape in that way, and the bees left for unknown parts right before my eyes. I now make the traps so that such a thing cannot happen. The metal now runs in a saw-kerf at each end of the trap, and it is impossible for a queen to escape. Mr. Edsall should see that the trap is in perfect order before it is placed on the hive.

☞ The Catalogue of the Iowa State College of Agriculture and Mechanic Arts is on our desk. It shows a healthy condition. The Hon. Eugene Secor is one of the Trustees, and is on the committee of "Farm and Farm Buildings." Among the faculty we notice L. H. Pammel, as Professor of Botany. Both of these gentlemen are apiarists. Prof. A. S. Welch, L. L. D., one of the faculty, and an acquaintance of ours for nearly twenty years, died last March. He was the first President of the Iowa Agricultural College, and a former trustee of the Michigan Agricultural College. He was full of years (nearly 70); a ripe scholar—faithful, able, vigilant. May his rest be peaceful, and his rising from it glorious.

☞ The October number of *Insect Life*, issued monthly by the Entomological Division of the United States Department of Agriculture, contains a full report on the horn-fly, which has been the subject of consideration in the Division during the past two years, and of special investigation during the past summer. This horn-fly pest has been a torment to the stockmen and dairymen of the Eastern States.

☞ Jno. C. Swaner, of Salt Lake City, Utah, has sent us his new Catalogue for 1890, and is the earliest comer, Nursery Stock, Flowers, and Bee-Keepers' Supplies.

GLEANS OF NEWS.

To Destroy Ants.

A correspondent asks for an efficient remedy for ants in the apiary. The following will give the desired information :

To destroy large ants of the kinds which gnaw holes through corks of molasses jugs, and get into sugar boxes and barrels, and sweets generally, sprinkle a little sugar or molasses where they will find it. When they get well baited, sprinkle a little good insect powder among the sweets—just a light sprinkling—and keep them supplied as long as they will come for it. They will go back to their nest, some of them carrying enough on their feet to destroy them all.

To destroy small red ants, dust a little insect powder for an inch or two around the leg of the table which they crawl up, and the next morning the table will be free of them, if no other way has been used by them. Do not sprinkle so much powder that they cannot crawl through it; their legs are short. A good many of them will be found close to the powder, but some will carry off a little powder on their feet. It is well to sprinkle powder along the road they travel. When on a permanent shelf, find, if possible, the road they use and dust it. If you cannot find their roads, dust the whole shelf lightly, and they will disappear. It sometimes takes four years to entirely destroy these ants.

Bee-Stings for Rheumatism.

Dr. Terc, of Vienna, Austria, has again tried bee-stings on a rheumatic patient. Upon saturating the patient's system with the bee-poison, the rheumatism disappeared —not to return again for a long time. Dr. Terc has applied his remedy in 175 cases, and has inflicted 39,000 stingings, and now keeps a colony of bees on his premises, to be employed in this work. So says en exchange.

☞ A complimentary notice of Mr. I. R. Good appears in the Nappanee *News*, from which we copy the following :

Mr. Good has been one of our most energetic citizens, having built many dwelling houses here during the past two years. As a member of the Town Board, his services were acceptable to our citizens, as rendered by a conscientious worker. The *News* regrets to see him take his dearture.

The Farm Journal, Philadelphia, Pa., has the largest circulation of any agricultural periodical in the world—150,000. It is now in its 13th volume, and is a good, practical Monthly. We can offer the *Farm Journal* and either the AMERICAN BEE JOURNAL or the ILLUSTRATED HOME JOURNAL from now until Dec. 31, 1890, for $1.20.

Or, we will *give it free* for one year to any one who will send us *one new* subscriber for either of our Journals with $1.00 (the subscription price).

This grand offer should bring us thousands of responses at once.

Artificial Comb Honey.

The old "gag" from the *Herald of Health*, comes up again, and is going the rounds of the press again. Here it is:

Artificial honey, which is more common in the market than consumers know, is made of potato starch and oil of vitriol. Some rash optimists think that they are sure of getting the genuine product of bees and flowers by purchasing honey in the comb. They do not know that the exquisite white comb that pleases them is often made of paraffine wax.

If it is so *common* on the market, why does not some one produce a pound or so of it, and show it as a sample? Not a pound of it has ever yet come to light! No, not an ounce of it!! Gentlemen, either show us a sample, or stop this lying about the matter!

Honey Almanac.

Concerning this helpful annual, Mr. C. Theilmann makes some suggestions. He says :

The Honey Almanac will surely pay honey-producers, and make large returns, if all will take hold of the matter in earnest and distribute them liberally with their honey. The cost is so small (only 1½ cents each, by the thousand) that we can all afford to work together and distribute them—making a rousing advertisement, and selling the whole honey crop; at the same time we are furnishing the best and healthiest of sweets to consumers.

Honey is an exeellent medicine for sore eyes; it is as good as anything that can be had. Apply the honey by dropping it into the eyes before going to bed, or after lying down. If it is too strong, dilute it. It is good for man or beast.

Its 32 pages are filled with interesting facts, figures and suggestions concerning the uses of Honey for Food, Beverages, Cooking, Medicines, Cosmetics, Vinegar, etc. Also, its effects on the human system are tersely noted; a brief refutation is given of the Wiley lie about manufactured comb honey; a short dissertation sets forth the mission of bees in fertilizing the flowers, and increasing the fruit product. Instead of being an injury to fruit, bees are the fruit-growers' best friends.

Beeswax, its uses, how to render it, and its importance as a commercial produet, is described, and 17 useful Recipes are given.

Each alternate page is an illustrated calendar for the month—making a complete Almanac for the year 1890.

This Honey Almanac places in the hands of bee-keepers a powerful lever to revolutionize public sentiment, and create a market for honey, by making a demand for it in every locality in America.

Wisdom would dictate that a million of them be scattered by the first of January.

Prices: $2.50 per 100; 500 copies for $10.00; 1,000 copies for $15.00, delivered at the freight or express office here. The bee-keeper's Card will be printed upon the first page, without extra cost, when 100 or more are ordered at one time. Postage, 40 cents per 100 extra. All orders can now be filled as soon as received.

Wooden Combs.

Mr. L. A. Aspinwall, of Three Rivers, Mich., had on exhibition at the late convention in Chicago, a wooden comb, which had been used by the bees for two seasons. This he had placed in our Museum for the inspection of our visitors.

These combs were mentioned on page 616, by Prof. Cook, who has also a colony of bees working on them.

In order to make such "combs," pieces of wood of the right thickness are sawed from the end of a pine block. In the sides of these pieces of wood, holes like cells are bored by gangs of little "bits," which are not allowed to meet, leaving a "base" for the cells. These "combs" are then dipped in melted wax, and placed in a honey extractor, and the surplus wax thrown off by the extractor being run rapidly.

Mr. Aspinwall claims these advantages for the wooden combs:

1. The combs are absolutely straight, and the cells perfect.
2. They are very durable.
3. They will admit of rough transportation.
4. The bee-moth's larvæ cannot infest them.
5. The honey can be extracted without any possibility of injury to the combs.
6. They admit of permanent queen and winter passages.
7. Drone and worker increase can be controlled, drone-traps being unnecessary.
8. An increased yield of comb honey can be obtained, by reason of a preference for natural comb, queen-excluding honey-boads being necessary.
9. The queen can be found more readily, there being no spaces between the edges of the comb and the frame, in which she can hide.
10. The great advantage to be derived from its use, one of more value than all the others combined, is that the hive furnished with this comb may be used as a swarmer or a *non*-swarmer, as desired.

In addition to this, says Mr. Aspinwall, "should it prove to a be a perfect non-swarmer, the success of bee-keeping will not necessarily depend upon its being conducted as a specialty; but with non-swarming hives, a hundred colonies of bees can quite readily be handled in connection with some other pursuits. Of course I refer to a non-swarmer without manipulation. We can sueceed in that direction at present by excessive manipulation, which of course will not pay."

As it is impossible for bees to rear drones in these combs, Mr. Aspinwall reasons that as they will not swarm without drones, they will not swarm at all.

We shall watch this invention with interest, and keep our readers posted as to its progress.

Convention Notices.

☞ At the request of several bee-keepers, I hereby make a call for a meeting at Higginsville, Mo., on Thursday, Nov. 14, 1889, at 9 a.m., for only one day, for the purpose of organizing a bee-keepers' association. Let all bee-keepers attend, that can do so.
J. W. ROUSE, Santa Fe, Mo.

☞ The Northern Illinois Bee-Keepers' Association will hold its annual meeting in the Supervisors' Room of the Court House, at Rockford, Ills., on Dec. 16 and 17, 1889. D. A. FULLER, *Sec.*

The Lindens and the Bees.

Written for the American Bee Journal
BY DAVID HALL.

'Twas a bright, pleasant morn in the month of July,
As the sun came up clear in the East,
And twelve hives of bees that were standing near by
Were awaiting a glorious feast;

For the basswood just then was beginning to bloom,
And each day with its long summer hours—
I knew that the bees would need plenty of room
To store from those beautiful flowers;

For we'd had a warm rain for some days before,
And Nature meantime had distilled
A nectar as sweet as Hymettus' of yore,
With which the cups of those blossoms were filled.

Soon the bees from those large double-hives sallied forth,
And took a bee-line for the wood;
And they loaded themselves up for all they were worth,
As a good strain of bees always should.

And the way they rolled in, tumbled in, 'twas a sight
That would make an enthusiast stare
And hurrah for the linden, with all of his might,
As he waved his hat high in the air.

For more than two weeks worked those bees with a will,
As they worked without favor or fear;
And a hundred pounds each was the size of their bill,
As the basswood closed up for the year.

Then, hurrah for the linden tree! Long may it wave
O'er this beautiful land of ours,
And give us henceforth, as it always gave,
Its honey-producing flowers.

Warsaw, N. Y.

QUERIES AND REPLIES.

Comparison of Italians and Blacks on Red Clover.

Written for the American Bee Journal

Query 665.—Do Italian bees work on red clover more than the black bees do?—P.

Yes.—M. MAHIN.

Yes.—A. B. MASON.

Yes.—J. M. HAMBAUGH.

Yes.—WILL M. BARNUM.

Yes.—MRS. L. HARRISON.

I think so.—R. L. TAYLOR.

Yes, they will.—J. P. H. BROWN.

Yes, decidedly.—C. H. DIBBERN.

It is so reported.—H. D. CUTTING.

Yes, undoubtedly.—DADANT & SON.

Yes. My experience says, five to one.—G. M. DOOLITTLE.

Certainly! There is no doubt about it, in my own mind.—J. M. SHUCK.

We have but very little red clover in Louisiana, but I never could detect that bees ever gathered from it.—P. L. VIALLON.

Yes, more than the black bees; but not more than Syrian or Cyprian bees.—A. J. COOK.

Yes, I think that they do; but neither works on it to any extent.—EUGENE SECOR.

It is so claimed, but I suspect that the difference is not so very great.—C. C. MILLER.

Yes, sir, they do; but they do not work on red clover as much as certain crosses between the two races.—JAMES HEDDON.

All the evidence is in favor of such an idea. As for myself, I have never tested the matter; all that I know is, Italians under the same conditions, give me far better results than blacks.—J. E. POND.

I think that they do. Some years back I had a fine Italian queen (from a noted breeder in New York) whose colony stored 100 pounds of comb honey, all from a 30-acre field of red clover, about ½ mile away. A number of black colonies that I had, failed to store any surplus. I believe, however, that there are strains of brown bees with a trace of Italian "blood," that do good work on red clover.—G. L. TINKER.

In my locality Italians work on red clover more or less every season; and in my experience of over forty years, I have never seen a pure black bee at work on red clover blossoms. Further, I have made inquiry of a number of old men of observation, and I have never met a man who has seen black bees at work on red clover. I am aware, however, that black bees do sometimes work on red clover in the North, where it grows much less luxurious than it does in Kentucky.—G. W. DEMAREE.

It is said that Italian bees have tongues long enough to reach the nectar in red clover. They may get honey from it in a dry time, when the clover heads are small. Once we had a ten-acre field of red clover away out at the back of the farm. Mr. Chaddock told me that the bees were "just roaring" on it. I did not go out to see, but I went to the hives, and everything was quiet. There were partly-filled sections on the hives, but they did not get any fuller, and I watched them day after day. I think that the bees smell the honey in the red clover, and try to get it—perhaps they do get a little, but not enough to put in the sections. The best plan is not to count on honey from red clover, and then if the bees do get any honey from it, consider it an accident, and be thankful.—MAHALA B. CHADDOCK.

Yes, they certainly do; but neither Italian nor black bees work on it, generally, to a very great extent, unless the bloom has been hindered by cold weather, and the stem of the flower is shortened thereby.—THE EDITOR.

The Introduction of Queens in Provisioned Cages.

Written for the American Bee Journal

Query 666.—When introducing a queen, is it thought as safe a plan to provide the queen-cage with a paste of honey and sugar for food, as to place it so that honey is within the queen's reach? (If any readers of this paper have actually made experiments in that respect, I should be glad to hear with what results.)—France.

I have not tried this experiment.—J. M. HAMBAUGH.

Both methods are just as safe, and I speak from actual experience of several years.—P. L. VIALLON.

Yes; but I have had no experience on that line.—C. H. DIBBERN.

I am not sure that one way is better than the other.—EUGENE SECOR.

I do not know, but I would as soon risk the honey.—C. C. MILLER.

Not *just* as safe, but if she has accompanying bees, it will be all right.—A. B. MASON.

I have tried the paste with good results. I prefer a bit of sponge saturated with liquid honey.—M. MAHIN.

I have never been able to notice any particular difference in the result, though it is my practice to use honey.—W. M. BARNUM.

I have many times tried both, and I see no difference. The "paste" is preferred, because it is less trouble.—J. M. SHUCK.

If the colony is otherwise queenless, and have plenty of honey, they will not let the queen die of want.—DADANT & SON.

It is best to place the queen so that she can reach the honey, and the bees have access to the outside of the cage.—H. D. CUTTING.

From experience, I cannot say; from theory, I should expect the queen to suffer, if the bees could not feed her.—A. J. COOK.

In introducing, I prefer a cage with an open side, placed over *uncapped cells of honey*.—J. P. H. BROWN.

Yes, and it is just as safe to give her neither, as in my experience a queenless colony never fails to feed a laying queen.—R. L. TAYLOR.

I always so introduce when working on the old plan, and have kept queens a week in this way. See my answer to Query 664.—J. E. POND.

Place the cage, so that honey is within the queen's reach. I have had queens die in the cage with food, but I think that they never died when placed on a comb.—MRS. L. HARRISON.

Yes, I consider it just as safe to use that plan as the honey, for in either case she will get enough to eat until she will be accepted, if she is ever going to be received. JAMES HEDDON.

I have kept queens for weeks, as described in my answer to Query 664, but all my experience goes to prove that no queen can be thus kept without some injury to the vitality of the queen. In other words, I do not consider a queen that has been kept away from the bees for a month, as good as she would have been, had she been with the bees all the while.—G. M. DOOLITTLE.

The former plan is fully as safe as the latter. My experiments show that there is no plan of caging the queen upon the combs so safe as the plan of allowing the bees to liberate the queen by eating out a plug of the "Good" candy before getting to the queen.—G. L. TINKER.

If a queen is introduced in the Peet cage, there is always "Good" candy enough to last her until the bees liberate her. I have introduced queens in all the ways, and have not lost many in introducing. I think that the "safest" way for a timid bee-keeper is to get a pound of bees with the queen.—MAHALA B. CHADDOCK.

When introducing queens, I provision the cage with soft candy. I would never cage a queen on a comb where I cannot see the actions of the bees toward her; that is simply "going it blind." In all of my experience I never knew of a queen to suffer for food when supplied with a good article of soft candy, made of powdered sugar and honey; or, what is better, a queen candy made by compressing candied honey.—G. W. DEMAREE.

Essays on Extracted Honey.

We offer Cash PRIZES for the best essays on "Extracted Honey," each essay not to exceed 2,000 words in length, and must be received at this office before Jan. 1, 1890. The first prize is $5.00; the second, $3.00; and the third, $2.00. All essays received on this offer will become the property of the AMERICAN BEE JOURNAL, and is open for competition to its subscribers only.

CORRESPONDENCE.

HONEY-PLANTS.

Golden-Rod—Comparison with Other Honey-Producers.

Written for the American Bee Journal

BY Z. T. HAWK.

I have been greatly interested in reading the reports regarding the value of golden-rod as a honey-plant. In the pleasant evenings of the past summer, a good many informal bee-conventions met on my veranda in Denison, Iowa; and the one absorbing question was, "What are the resources of our range?"

The willows and early spring flowers gave our bees an excellent start in brood-rearing, and fruit-bloom tided them over to the opening of white clover. But day after day our hopes sank lower, for the "off days" of the clover were so many that the bees barely lived. We watched the basswood with great anxiety, and July 1—the date on which the first petals opened—was a greater day with us than the Fourth. My 26 colonies began work in supers enough to give me 500 pounds of honey, had they completed them, but that was not to be.

A large pasture of Alsike clover carried them through the starvation period of two or three weeks that always follows the blooming of basswood, and, during this interval, it became evident to me that the large weed, *Gaura biennis*, is coming to the front in our vicinity as a bountiful yielder of both honey and pollen at a time when it is much needed.

This weed is of comparatively recent introduction in Western Iowa, but it is spreading with great rapidity, and fast monopolizing waste places on rich bottom-lands and favorable situations on uplands. From early morning until 9 or 10 o'clock, it yielded nectar in astonishing quantities, the drops at the base of the stamens being as large as small bird-shot, and a branch suddenly shaken would wet the hand with the sticky liquid.

The earlier sources of surplus having failed us, our discussions turned upon the fall flowers, and their relative value to the bee-keeper. The fact was developed that our "club" had only a wavering faith in the golden-rod, though I am inclined to think that we owe more of our fall surplus to it than is at first apparent. The odor of this flower is not to be mistaken, and I have yet to see the September in Iowa—unless it was this year—that the merest novice, in going among my bees, would not sniff the air and say, "golden-rod."

Our bees are usually busy in the sections until frost comes, and it frequently happens that there are few flowers besides golden-rod in bloom so late in the season; yet I am compelled to acknowledge that it has been on rare occasions only, that I have seen bees at work on it in large numbers. It yielded well in 1886, but in 1887 there were only two days that the bees paid any attention to it—at least so far as I was able to determine. But those were two good days, for the meadows and pastures fairly roared with bees from morning until night, and every yellow head and raceme seemed to have three or four excited little workers contesting possession with the black beetles.

In 1888 I had no opportunity to observe the golden-rod, but this year I noticed the bees quite busy on the tall racemed variety, three days early in September. Possibly they worked some on it later, but I had no opportunity to see them. I only know that it yielded no surplus.

There are four varieties of the plant here, and the bees usually work on all alike. I am inclined to rank heart's-ease as the best of our autumal plants for honey, and golden-rod second, with a large element of uncertainty about it. The asters are very plentiful here, but I am satisfied that they cut absolutely no figure in this locality as honey-plants. After seven years of close observation, I have failed to see a single bee visit them.

Audubon, Iowa.

HONEY.

Some Facts Pertaining to the Production of Honey.

Written for the American Bee Journal

BY DR. J. W. M'KINNEY.

I do not wish to make a "surprise" party of the little "honey discussion" incidentally fallen into with Prof. Cook, but sincerely I am "surprised" at the pertinacity with which the Professor adheres to the dogma of honey being "digested nectar."

On page 647, he says that he "believes no scientific authority teaches other than that nectar is cane-sugar, and honey, for the most part, reducible sugar .....Now there are two ways that the cane-sugar can be changed to honey—either by boiling with acid, or by animal ferment;" and he goes on to say, "As the bees cannot do this in the first way, they must do it in the second."

To avoid a lengthy article, I will just say the eminent chemist, Maumene, has found that cane-sugar undergoes the change into uncrystallizable sugar when kept for a long time in *aqueous solution*, as well as when heated with acids. Saubeiran admits the change of uncrystallizable into grape sugar, but attributes it to a *molecular* transformation of the sugar, independently of the action of an acid; as according to his observation the conversion takes place *only* after rest. In confirmation of his views, this chemist states, "that he found the same to be prodnced by boiling sugar with *water alone*."

For want of a better term, we might be permitted to say that the *acid*, to which the Professor refers in the production of honey, exists *isomerically* in the juices of fruits, in all saccharine juices, and in nectar as well. That is to say, that the acid, or its equivalent, exists in these substances, and it is not at all necessary to call in the aid of the honey-bee, or tax its energies to furnish an acid for the manufacture of honey.

In support of this matter of the pre-existence of acids in saccharine juices, etc., I will simply quote what Prof. Franklin Bache says, when speaking of the manufacture of cane-sugar. He says:

"The acids naturally existing in the saccharine juice, have the effect of converting the cane-sugar into uncrystallizable sugar, by which a loss of the former is sustained." "The lime" (added in manufacturing sugar) "by neutralizing these acids, prevents this result." "The change in sugar which precedes fermentation, namely, the conversion of cane-sugar into the uncrystallizable kind, points to the necessity of operating on the juice before that process sets in; and hence the advantage of grinding the canes immediately after they are cut, and boiling the juice with the least possible delay."

Thus we see that not only this formerly eminent teacher of chemistry, but author as well, recognizes the existing fact of the presence of an acid, or acids, or their equivalents in saccharine juices.

I can hardly believe for a moment, that any one, much less Prof. Cook, would deny the presence of an acid, or its equivalent, in the grape, as well as in the juices of most other fruits. By what process of reasoning, or chemical demonstration, he arrives at the conclusion that nectar, a vegetable juice, secreted by the nectaries of flowers, does not possess the acids, or their equivalents, common to all saccharine juices, is very strange.

If the Professor would take this rational view of the matter, recognizing, as all scientific authority does, the *presence* of *acids* or *their equivalents* in

all saccharine juices, the necessity of invoking the aid of the honey-bee to "make" honey would quite disappear; and in addition to being right, as facts present themselves, it would be a great relief, physiologically, to the idustrious but over-worked honey-bee.

By carefully noticing the Professor's article referred to, it will be seen that he furnishes strong argument in support of the rational fact of honey being *concentrated nectar*. Yes, the Professor is right in saying, "Any sugar in diluted solution, if kept warm, is liable to ferment or sour"—thin honey the same; therefore the necessity of concentration as early as possible, if we wish to prevent thin syrup, or honey, from spoiling by fermentation. In fact, nectar must be *concentrated* before it is entitled to the name "Honey."

Pure honey is "concentrated nectar." "*Digested* nectar" will never, never do.

Camargo, Ills.

BEE-PARADISE.

Remarks on Bee-Keeping for Northern California.

Written for the American Bee Journal

BY D. B. WIER.

This is undoubtedly the best bee-State in the Union, as well as the best for nearly everything else. I came here from Illinois, and looked over every part of the State, both in summer and winter, before choosing a location for a home.

I had had a full sufficiency of bad climate and poor health in Northern Illinois, and wished to find, first of all, a climate in which I could have *comfort* and *health*, and where I could grow pretty nearly in perfection about anything that I wished to plant; where crops were sure without irrigation; and where there were nice people, schools and churches.

All of these things, and about everything that a reasonable person could wish for, I found right here in Sonoma county, 20 to 80 miles north of San Francisco. It is a most beautiful county, with broad, level, and exceedingly rich valleys, and rounded very high hills and mountains, with plenty of the purest water, of fuel, and of lumber; with lands and homes improved and unimproved; and all things considered, they are as cheap as elsewhere on the continent.

I mean just what I say in this, that land may be had, and is, just as cheap here at $100.00 or $150.00 an acre, as it is in Montana, Dakota or Oklahoma at $1.25 per acre, or free to settlers, if one has the money to buy; for one can make a better living off of 10 acres here—make more net profit—than he can there off of 160 acres, and, besides, enjoy this perfect climate for health and comfort, where there are no extremes, fierce storms, never hot, and never cold.

Besides, there is a large amount of free mountain Government land in this county. This mountain land is eminently adapted to fruits and bees. It is mountain land, but very rich, and where plowable, one can grow any crop on it that he may desire to plant, from the potato to the orange, and all is the best for pasturing stock.

The climate of the coast range, 10 to 30 miles from the Pacific Ocean, is the pink of perfection for health and comfort, crops and fruits of all kinds, and for bees. Bees must have three things to thrive, namely, warmth, a long season, and plenty of nectar-producing flowers, with flowers so formed that the bees can reach and gather the honey. These three things are everywhere present in the mountains of Sonoma county, at least ten months in the year. One other requisite is feeding-grounds sheltered from rough winds. This may also be found in the mountains.

Having the above requisites, and a canyon opening to the east or south for several miles, or even a mile in length, with a perennial mountain brook gurgling down it, and we have a perfect paradise for the bee-keeper—the brook fringed with its thousands of flowering shrubs, and the mountain sides carpeted with millions of flowers.

I am not a practical bee-keeper, though I have done something in that line, but I am a practical wild-bee hunter, an expert and specialist in that line, for the sport, skill, exercise and recreation found in it. As the girls say, "I dearly love it;" therefore, when going into a new country, among my first enquiries is the one whether bees do well or not.

I was surprised, on making the enquiry, to learn that scarcely any bees were kept. I also learned that bees did wonderfully well here for many years, and that the moth and bee-diseases came in and destroyed them. Of course they did, and did so everywhere under the old-fashioned hives and management, in the same way that they are now doing in the southern part of this State, and in the Sierras; in these last two regions, moth and diseases have come in, but they can be managed and controlled the same as bee-keepers do it in the East.

The foregoing facts leave Sonoma county virgin soil without competition for the skilled apiarist; any one who can succeed with bees in the East, who understands the science of modern bee-keeping, can succeed ten times better here. Bee-keeping and fruit-culture combined, would be very profitable with light labor here. To those wanting further information of anything in or about this State, I will be pleased to furnish that which is reliable, if stamps are enclosed for reply.

Petaluma, Calif.

FALL WORK.

Uniting Colonies in the Fall for Wintering.

Written for the American Rural Home

BY G. M. DOOLITTLE.

As the season of 1889 has been rather unpropitious for bees in some sections of the country where only white honey is the source of supply, some bee-keepers now find that their colonies have not the necessary number of bees or the necessary amount of stores to give promise of successful wintering; hence they ask what they are to do under such circumstances.

If the colonies were strong in bees, the question might arise whether it would not pay to buy sugar, even at the present high prices, and feed the bees so as to have a greater number next spring, but where colonies are both light in bees and in stores, there is only one correct solution of the problem, which is, to unite the bees till all are strong, and then if stores are still lacking, they may be fed.

There have been many plans given for uniting bees, some of which are too laborious to be tolerated, such as moving colonies little by little each day until they are brought together, carrying them to the cellar for a few days, etc.; the advocates of these plans claiming that by their use none of the bees will return to their former location, yet I find that the more simple plans do just as well where a little precaution is taken by way of removing all signs of the former home from the old stand.

The plan I use, and one which has always worked well with me, so far, is as follows: Having decided that certain colonies are to be united, the first thing to know is, which of the two or three, as the case may be, has the most valuable queen. Having ascertained this, I hunt out the poorest and kill her, then take the hive or hives from which the queen has been killed, to the stand of the one they are to be united with.

I now select from each hive the frames having the most honey in them, to the number I wish to winter them on, and set them in one of the hives,

alternating them as they are set in the hive.

In moving the bees they are jarred by placing the hives on a wheel-barrow in no gentle manner, and wheeling them rapidly to the place they are to stand, first having confined the bees to the hive, and doing the whole on some cloudy day when the bees are not flying, which causes them, in a measure, to forget all about their former home in their anxiety for the present; and also causing them to remain on their combs much better in handling them than would be the case were they not thus disturbed, so that in the process of uniting, very few bees take wing in comparison to what otherwise would, and these few are so bewildered that they immediately go in with the others in the new hive or united colony.

Having the hive full of the combs containing the most honey, I next shake the bees, which are on the remaining frames, off at the entrance, taking one frame from one colony, and the next from another, and so on, so as to mix the bees up as much as possible. When all of the bees are inside of the hive, the work of uniting is done. Remove the hives, bottom-boards and all from the stands occupied by the united colonies previous to this, and no loss of bees will occur.

What few bees go back to the old stands, return after finding their old hives gone; also the mixing-up process spoken of above, causes them to mark their location anew, at their first flight afterward, the same as does a new swarm, or when the bees take their first flight in the spring.

Borodino, N. Y.

VISITING.

An Interesting Account of a Lady Bee-Keeper's Visits.

Written for the American Bee Journal

BY MISS IDA HOUSE.

The basswood flow was immense here the past season, and lasted nearly three weeks. Our bees forgot to swarm after they began to work on the basswood, so we had 160 strong colonies already for work. We (my brother-in-law and I) took off at least 12,000 pounds of honey, the most of which is basswood.

The season was so dry that we did not get any fall honey to speak of. After getting the bees ready for winter, and packing our trunks, we left the bees to the merciful care of my brother-in-law, and started for my old home in the southern part of the State, where we arrived all safe, and sound after spending a most delightful day at the Minneapolis Exposition.

While looking at the grand display of nearly all kinds of industries, and seeing the beautiful castles and palaces made of grain and corn, we could not help wondering where the products of apiculture were, and so we built an air-castle (of magnificent grandeur) out of beautiful honey and beeswax, and furnished it with all the articles necessary for bee-keeping, while near by was the ideal apiary with all its modern improvements.

Since our return home we have been to visit a bee-keeping friend, Mr. Turnbull, who may well feel proud of his beautiful hillside apiary, which consists of 240 colonies of bees, in rows of neatly-painted hives, with shade-trees, honey-house and work-shop, and last, but not least, his beautiful home and loving wife and children.

We wandered into the honey-house, where Mr. Turnbull was busy getting his honey ready for market. He has about 8,000 pounds of what would have been beautiful comb honey, had not a careless bee-keeper ruined nearly 500 pounds of it when removing it from the hives.

The following interesting incident happened while we were there:

Mr. Turnbull was greatly troubled with the bees in his honey-house, and he had spent hours in trying to find where they got in; but, alas, not even a knot-hole could he find for the bees to get through; but on Oct. 11th, in removing a large case of honey, he saw a cluster of bees hanging from the ceiling. He came to the house, got a light, and said that he wished I would go and see what I thought about them; and I found, to my surprise, that they were clustered on pieces of comb fastened to the ceiling.

Mr. T. asked if I thought they had a queen. I did not think that bees would build comb without a queen, or any prospects of one, and he was of the same opinion. So, with Mrs. Turnbull, her sister and my sister, near by, to caution us to be careful, or we would get stung, we put a hive under the bees, took a sharp knife, and cut the comb down, which fell into the hive with the bees.

(About this time our friends were called upon to make a hasty retreat. I saw no more of them until I returned to the house, and then I was not sure but what I had gotten into an apothecary's shop, or hospital; but the evil spirit within me burst forth in peals of merry laughter, in which they all joined, until the walls gave back the echo).

We gave the bees some combs of honey, and left them. The next morning they had a nice queen, and were very quiet—in fact, I think that they were tired of camping out, and felt grateful to us for their new home.

We were sorry when we had to bid our good friends good-bye, but we hope to visit them again in the future.

Hokah, Minn., Oct. 25, 1889.

WINTERING.

Preparing Bees so as to Winter Without Loss.

Written for the Kansas Convention

BY REV. J. D. GEHRING.

In regard to wintering, I can say that I have never lost a colony yet from any cause. I do not think that bees will freeze to death if they have accessible food of a proper kind. If they starve to death, or die on account of bad food or want of ventilation, the bee-keeper (?) ought to be punished for "cruelty to animals."

I believe that the "extractor," together with the effect of penuriousness, are to be blamed for winter losses, more than anything else. My theory is this: Give them plenty of *good* honey—that is, *leave* plenty in the hives, and tuck them up snugly, and then let them defy the hardships of a winter's siege. A solid frame of honey on each side of the brood-nest is, in my judgment, worth more than cushions or blankets.

Hive-Ventilation in Winter.

Another important matter is ventilation, the silly arguments to the contrary notwithstanding. Moisture, which is as inevitable as it is essential in a strong, healthy colony, seeks escape upward—as soon as it goes the other way, it has condensed, and mischief is brewing. Well, superfluous moisture must have vent, and nature says "upward." But, it is just as true that the escape of heat, in the same direction, must be prevented by top-packing.

I think that this theory is supported by philosophy and personal experience. Allow me to illustrate:

If I desire to keep warm in bed, I want the covering just right—not too heavy, and not too light. It does not matter so much what kind of a bed I have under me—so that it is not too short or too narrow; but I want enough warm, soft, and at the same time light, covering. If the covering is heavy and stiff, I perspire, and get colder and colder. I also want the covering close to my body, snugly tucked in. It would not do me any good to put a blanket or two on top of the house that I may be in; nor do I want it under me, or at either side; I want it next to me, on top!

Now, the same philosophy I apply to the packing of my bees for winter, viz.:

1. Have the hive near the ground, and protected from the cold winds.

2. Leave enough of the entrance open for ventilation. This is even more important in winter than in summer, because in warm weather the bees provide air by "fanning," but in cold weather they are semi-dormant.

3. Have an abundance of good honey (not syrup) in the hive—much more than you think they will need, and provide passage-ways from one side to the other of the brood-nest, *on top*. The best thing for this, that I have tried, is the following:

Saw laths in lengths to reach across the brood-nest to within an inch or more on each side; nail the pieces, two by two, together so as to form a trough, and lay three (or more) on top of the brood-nest, equal distances apart; then put on top a piece of good burlap (never enamel-cloth, oil-cloth or heavy duck) cut large enough to be fastened down all around, so that the bees cannot get out into the top packing.

4. Pack with leaves, chaff or fine pine shavings, from about four to ten inches on top, and put on the cover—not forgetting to have at each end of the cover an inch auger-hole covered with wire-cloth, for the escape of moisture.

5. Do not unpack, frequently disturb, or manipulate too early in the spring; but watch them closely, all the same.

6. A good queen in February and March means a good working colony, and surplus when clover blooms. When I say in February and March, I of course mean that the bee-keeper should see to it that each colony has a good queen when packed for winter, or when this, for any reason, cannot be, provide one not later than February or March, by doubling.

When I want to unite or transfer, I take both hives into a warm room, or into the cellar, for the purpose; and after a few days I put the strengthened and queened colony back to its stand.

The foregoing is my "system" of wintering bees. I think that there has been, and is, too much written and said by leading men in the bee-business, about "*cellar wintering*," "*bee-diarrhœa*," "*spring dwindling*," etc., to the confusion and dismay of "green beginners."

Much depends upon the kind of hive used; but more depends upon the kind of management applied.

Lawrence, Kansas.

Subscribers who do not receive this paper promptly, will please notify us at once.

LIFE'S BUBBLES.

BY EUGENE SECOR.

A golden-haired boy sat alone on the floor,
With a basin of suds beside him;
From a new clay-pipe he tried o'er and o'er
To make fairy worlds o'er-ride him.
With patience and skill
He labored, until
His globe assumed shape on the pipe-rim.

With delicate grace it floats in the air,
In beauty excelling the rainbow;
With bright, eager eyes he follows the fair
Creation before him, when, lo,
A breath from somewhere,
Somehow entered there,
And his fairy-world vanished *in to-to*.

A few fleeting years and this golden-haired boy
Has led to the altar a maiden:
The life that now is, seems his to enjoy;
And with love and sweet duty to aid in
The voyage of bliss,
With what more than this
Doth the "barque of life" need to be laden?

A woman as fair as the daughters of Job,
And as pure as the breath of heaven;
Had a seraph descended in spotless robe,
No holier wife had been given.
But, sudden and soon,
Before her life's noon,
On mortalities rock the barque was driven.

Alone in the world, he in sadness awhile
Doth ponder the problems of sorrow;
But Time, the great healer, doth ever beguile
The heart to think well of to-morrow;
And grief is assuaged
When the mind is engaged,
And hope from the future doth borrow.

The goddess of wealth now allures him to toil,
With the promise of plenty and pleasure,
Assuring the honors from which no recoil
Should come in his moments of leisure.
And riches did come
In generous sum,
When solely intent on earth's treasure.

As apples of Sodom to ashes are turned,
When pressed to the lips of the finder,
So, false and deceptive, at last he has learned
That wealth is a phantom reminder
Of treasures where rust
Corrodes not, nor dust
Shall mar the sweet peace of the finder.

'Tis thus we're reminded, as time and again
Our hopes in things earthly are shattered,
That Solomon said, all things are but vain,
No matter how much they have flattered;
One certain, pure joy,
Content without alloy,
Shall come when ambitions are scattered.

Forest City, Iowa.

BEE-DISEASE.

Results of the Season—Marketing the Honey Crop.

Written for the American Bee Journal

BY C. THEILMANN.

On page 635, Mr. Skinner asks me for further explanation regarding the "nameless bee-disease," but does not say what I should explain, so I am in the dark. I will with pleasure explain anything that I know about this disease, which is not explicit in my article on page 584.

I believe that bees should have access to salt, where creeks and rivers are far away from the apiary; but I do not think it a necessity where they are near, and where lots of cattle and other stock have watering-places, where the bees find all the salt they need to carry on their household. I know that they like this kind of salt better than our common cooking-salt.

In past years I tried to feed my bees salt and water in troughs, but they would never touch it, because they got all they wanted at the watering-places, which apparently suited them better; so now I do not put out salt for them. I cannot believe that the want of salt causes the "nameless bee-disease."

In addition to my article on page 584, I would say, that in *Gleanings*, page 740, the black, hairless shiny-bees are spoken of by "Amateur Expert," who writes that the disease is known as "bacilli depletus." According to my observations, this seems to be nearer right, than that the lack of salt is the cause of the disease, though salt will check the disease; but whether it is "bacilli depletus," or parasites, who knows? The actions of the bees look as if they had the itch or scrofula.

Report for the Season.

I commenced the spring of 1889 with 185 colonies. The weather up to the forepart of June was unfavorable, and I had to feed about 1,500 pounds of honey and sugar to save my bees; but from the middle of June until Sept. 1, we had a continual flow of neetar, with the exception of a few days. Linden was in bloom for 21 days, on account of the cool weather while it was in bloom; this was the longest time I have ever seen linden in bloom. It generally lasts from 6 to 10 days; once only in 20 years it lasted for 14 days.

My crop is 3,000 pounds of extracted, and about 22,000 pounds of comb honey, of excellent quality, one-half of it being white. I have sold about half of the lot at 12½ cents per pound here; that is, I deliver it on board the cars.

Dealing with Commission Men.

A good deal has been written lately about commission men. There are just as good and honest commission men as there are among other classes, and also some bad ones, from whom I have had to learn dear lessons. I like to sell my honey for cash, even if I get a cent or two less for it; but I cannot always do this, and then I do the best I can. Even last year I sold all but about 1,500 pounds, which was sent on commission to a man who was quoted from $40,000 to $50,000 in Dunn's Mercantile Agency; when I got my returns this fall, the statements showed 12½ cents per pound for the same honey that I sold and got my money for last fall at 17 and 18 cents per pound. We should all try to sell our honey for cash.

Theilmanton, Minn.

THE SOUTH.

Wintering Bees in the South and Summering them North.

Written for the American Bee Journal
BY JOHN CRAYCRAFT.

I was greatly pleased with G. M. Doolittle's letter on page 581. It opens another field in the progress of profitable bee-keeping, both for the North and the South, which is certain to become profitable to the bee-keeper in the North and South in about the following manner, as I, at this time, look at it:

About Sept. 1, put up all the bees in colonies that have not an abundance of honey for wintering safely; and ship them to the South to some partner in the trade, and he can turn them on empty combs, or partly drawn foundation, and they will then build up before the fall honey is all gathered along the St. Johns river swamps here, and he could get a full crop of the orange honey in March and April, and such part of May as they might be kept before returning them to the white clover fields of the North. Such a transportation of them could be made with a very small expense. All their winter stores could be saved, or whatever they may have had, and turn the new young bees from the South on the combs.

If in September you send to your partner in the South, say 25 or 50 queens, and an average of 2 or 3 pounds of bees, and have a like amount returned in May, or such time as the season or location permitted, the same cases that they were shipped in would do to return them in again. This seems entirely practical at a glance, as it were.

First, the wintering problem would be solved, for there would be no feeding to carry them through the long, cold winter.

Second, there would be as many, or more, young and vigorous bees ready for the field when the harvest came next May.

Third, is the cost. The cages would be the first and greatest cost at the start, but with care they would last through many seasons. If packages weighing as much as four pounds were sent by mail, the postage would be 64 cents on each; but if such packages were put up in lots of 5 or 10, I think that the express company would carry them at a less cost than by mail, and with greater safety. They could be so put up that 2½ pounds of bees, cages and feed would not weigh to exceed 5 pounds, after they were crated in lots of five or ten, and I think that they would not cost, in expressage, more than 25 or 30 cents per cage in such lots. With that amount of bees, there would be but little trouble of their producing a good gathering of honey, if the season was favorable.

I would put the cost of one cage, with feed, 50 cents; express charges, both ways, per cage, 80 cents; cost of their winter care and putting up again in the spring, per cage, $1.00—making a total of $2.30; and this would mean as many bees returned with the same queen if living, and if not, with a young laying queen.

The expense of $1.00 for their care would not compensate the partner in the South, but he would have the honey that the colony gathered until the 1st or the 20th of May, as the case might be; and with proper care he would have a colony of young bees, brood and eggs, that would soon rear them a queen, if he had not already a young laying queen, or a cell ready for cutting out.

I think that such a change could be made profitable to both parties. The one North would have no wintering trouble to go through, a saving of at least 20 pounds of honey, no labor and care, and have as many bees to turn in the old hive as were taken away, and all young and vigorous, and ready for labor. The one at the South could have a new colony of bees left after replacing as many bees as he received, besides all the honey that they may have gathered. But if the mails will carry bees up to as many as would make a 4-pound package, that would certainly be a very great help to the fraternity.

I have my bees on the St. Johns river, between Lake George and Sanford on Lake Monroe, at St. Francis, a few miles from Deland. I have had my bees on the river for a year, and having studied the flora there tolerably well, I have decided to go into bee-keeping almost exclusively, with my son, who is a thorough, practical bee-keeper for a boy of 17 years; but we have only a small apiary of 40 colonies. We did not desire to increase them until we were certain of our location being a good one, and the honey first-class.

There is no finer honey than the pure orange-blossom; and the wild grape-vine honey, along the river swamps, cannot be excelled by any honey that I have ever seen. I kept bees in Indiana, and one season I had the charge and the management of Dr. N. P. Allen's bees, of Smith's Grove, Ky., in the best white clover fields that I ever saw, and the clover does not excel the wild-grape. I am satisfied with Florida as a honey-producing State, but there are many locations to keep bees that would prove to be complete failures. I would like to have this sending of queens and bees South to be wintered, and returned in the spring, tested, so that the cost, expenses, profits and losses will be established the coming winter, so if it were found to be practicable and profitable to both parties, we would prepare to receive and care for several hundred colonies next year.

Altoona, Fla.

ZINC EXCLUDERS.

The Use of Cell-Cups for Queen-Rearing—Golden-Rod.

Written for the American Bee Journal
BY JOHN S. REESE.

Several items published recently in the bee-papers in regard to perforated zinc, prompts me to give my views.

First, the perforations must be of such size or width as to exclude *all* queens and drones, and give free passage to all workers. This certainly has been accomplished, judging from my experience with at least one "make" of zinc, which I duplicated with my foot-power punch.

The next point to be considered, is getting as many holes ¾ of an inch long in the zinc as possible, and yet retain the necessary strength or rigidity; the object of this being to obtain as little resistance to ventilation through the zinc as possible, therefore the square-cornered hole is a necessity to accomplish the desired end. This is especially desirable when the zinc is to be used in traps and as entrance-guards, so as to give the bees every opportunity of ventilating their hives during warm weather.

The traps that I use have a strip of this zinc (through which the bees pass in and out), about two inches wide and as long as the full width of my hives—15¾ inches; and the traps can be, and are, frequently left on the hives for weeks at a time, during the hottest days in July and August, with no bad results of any kind.

Cell-Cups for Rearing Queens.

The Doolittle cell-cups have proven very satisfactory with me, especially when necessary to remove a cell, in any state of development, from one frame or hive to another. The cups have such a solid base that they can be stuck around anywhere.

I keep a lot of the cups convenient, and when cells are wanted, the royal jelly is transferred from the surplus cells that have been taken from the hives at different times, and laid aside for future use; the grub or young queen was thrown out, and the end of

the cell pinched together to exclude the air and keep the royal jelly from drying up. I have used the food for a number of these cells after keeping them for several weeks—indeed, I have just used some of it to-day (Oct. 19), that has been taken from the hives more than a month, and the jelly was perfectly fresh. Next season I shall try keeping some of this royal jelly in a small bottle.

On one occasion I softened up with water some of this queen-food that was dry and hard, and it answered every purpose in the cell-cup.

The little grubs can be taken in a few moments from the combs of the choice queen, without cutting or injuring the combs. This requires very little practice to enable any one to select the grubs, and transfer them very rapidly, and frequently without removing or disturbing the bees on the comb.

No Honey from Golden Rod.

Golden-Rod in the "blue-grass" region of Kentucky has never furnished any honey, as far as I have been able to learn; but the asters do, and to-day my bees are coming in loaded with honey and lemon-colored pollen from them, and every comb is loaded to the guards with honey and pollen, which insures every colony to winter perfectly on their summer stands, with six inches of sawdust and a water-proof corrugated iron-cover.

Winchester, Ky.

An Open Apple Tart.

Stew some apples till quite soft; take out any hard pieces, beat them to a pulp, and to half a pound of pulp allow six ounces of sugar, five eggs and the grated rind of a lemon. Beat all these well together, then add gradually five ounces of melted butter. Line a dish with puff paste, pour in the mixture and bake it at once.

Chocolate Cakes.

The whites of eight eggs, half a cake of chocolate grated, one pound of sugar, six ounces of flour. Beat the eggs to a stiff froth, add the sugar, then stir in the chocolate and flour. Butter flat tins, and drop the mixture thereon; not too closely, as the cakes will spread. Bake a few minutes in a quick oven.

For Neuralgia.

Boil a handful of lobelia in a half pint of water, strain and add a teaspoonful of fine salt. Wring cloths out of the liquid, very hot, and apply till the pain ceases, changing as fast as cold, then cover with a dry cloth for a while to prevent taking cold. Two large tablespoonfuls of cologne and two teaspoonfuls of fine salt mixed in a bottle makes an excellent inhalent for facial neuralgia. Horse-radish, prepared the same as for the table, applied to the temple or wrist, is recommended.

Europe has 200 unions of men who sew for a living. The members earn about $3 a week and live and dress poorly.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Dec. 4-6.—International, at Brantford, Ont., Canada. R. F. Holtermann, Sec., Romney, Ont.

Dec. 16, 17.—Northern Illinois, at Rockford, Ills. D. A. Fuller, Sec., Cherry Valley, Ills.

1890.

May 2.—Susquehanna Co., at Hopbottom, Pa. H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER-BOX

Nebraska Fair Premiums.

We have had a splendid fair. I took premiums on fruit, grapes, and bees and honey to the amount of over $100. I had 45 varieties of grapes alone, on exhibition.

WM. STOLLEY.

Grand Island, Nebr., Oct. 28, 1889.

Moving Bees a Long Distance.

It will be seen by my address that I have made quite a move. I shipped 48 colonies of bees from Dubuque, Iowa, to Tacoma, Wash. Ter., sustaining a loss of 8 colonies, being 12 days on the road. This is the longest shipment that I know of, being nearly 2,200 miles. The possibilities of bee-culture here, I think, are great. Here grass and flowers now look like they do in May in Iowa. C. A. PHENICIE.

Tacoma, Wash. Ter., Oct. 26, 1889.

Bees in Box-Hives.

I concluded that two of the 7 colonies in box-hives, mentioned on page 652, did not have stores enough to keep them through the winter, so I destroyed them, leaving only 5 good colonies, 3 of which did not have honey enough to satisfy me. I have fed them some sugar syrup. I propose to leave them on the summer stands all winter, and put corn-stalks around them. Mr. Swezy, a bee-keeper living in Brook Haven, does not give his bees any protection whatever in the winter. He just lets them stay on the summer stands. Out of 6 colonies he has only 2 left; I purchased 2 of them, and 2 died, leaving him only 2.

O. R. HAWKINS.

Bellport, N. Y., Oct. 14, 1889.

First to Ship Bees by Mail.

We have just read the article on page 667, in which Mr. C. J. Robinson accuses Mr. Langstroth of unfairness, and of not giving him (Robinson) the due honor of having been the first to send queens safely by mail.

Mr. Langstroth is human, and consequently has his faults as well as Mr. Robinson, or any of us; but we wish to say publicly, that in this case Mr. Langstroth is *not to be blamed at all*. When we took the revision of the book, "The Hive and Honey-Bee," from the hands of Mr. L., his most emphatic desire was, that we give honor to whom honor is due, and he expressed the opinion that we would try, as hard as any one possibly could, to do this to the fullest extent. The work of revision had hardly begun, when Mr. L. took sick with the disease that has so long prostrated him, and that is even now keeping him from the world. We were, therefore, deprived of his help, and of his counsel. When we took up the subject of mailing queens, we searched the oldest volumes of the AMERICAN BEE JOURNAL for the names of those who had first shipped bees by mail. If Mr. Robinson is there mentioned, we did not see it. Had we found it, we should certainly have given him credit, instead of giving it to Messrs. Townley and Alley. But let Mr. Robinson's ire fall on us, and not on Mr. Langstroth, who has nothing to do with it.

Since Mr. Robinson has a letter from Mr. Langstroth, acknowledging that he was the first man to ship bees safely by mail, we stand ready to give him due credit for this in the next edition of the "Hive and Honey-Bee." CHAS. DADANT & SON.

Hamilton, Ills.

Poor Honey Harvest.

The honey harvest was a poor one again this year in Somerset county, Pa. I would have had to feed, like I did last season, but buckwheat yielded some honey, and golden-rod also yielded well for about three weeks. This was the only honey we have to winter bees on, as almost all the white clover and linden honey was used for breeding.

D. D. JOHNSON.

Summit Mills, Pa., Oct. 25, 1889.

Excellent Results.

The AMERICAN BEE JOURNAL is a very welcome visitor in our family every week. I wintered 26 colonies in the cellar last winter, lost one, and since I have increased to 40, and have taken off 800 pounds of No. 1 comb honey, and 200 lbs. or more of second and third grade honey. The weather has been too wet and cold for good results, so say experienced bee-keepers. With myself, this is the fourth best season thus far.

C. GUILFORD.

Cuba, N. Y., Oct. 28, 1889.

Good Yield of Honey.

I put 15 colonies of bees in the cellar last November, and all came out in good condition in the spring. They did fairly well through April and May, but June was so excessively wet that the first half of the white clover bloom gave but little honey; however, about July 4, the weather cleared up so that the bees did well on the profuse white clover bloom, till the basswood commenced to bloom, which was about July 15, and that lasted the balance of the month, and yielded moderately well. Twelve colonies, which I worked for extracted honey, gave about 1,300 pounds of clover and basswood honey, and 500 pounds of fall honey, which is a good yield for this locality. There is a good demand for honey, on account of the scarcity of fruit, and I have sold nearly all of mine at my own door, at 10 cents for the white honey, and 7 cents for the dark. The yield from buckwheat was light, but I have not known the golden-rod to yield so well in many years.

DAVID HILL.

Warsaw, N. Y., Oct. 28, 1889.

Golden-Rod—Good Season.

As "Golden-Rod" is being tried by a jury of apiarists, suppose we should all give in our testimony. It is very abundant in this vicinity (Waushara county) and, judging by the way the bees work upon it, it is a most excellent honey-plant. I have many times seen several bees upon a single stalk. There are at least two varieties here, both of which yield honey. In my opinion, golden-rod has redeeming qualities enough

to entitle it to become our emblematic flower; it is wide spread, and universally known and admired by every one, and it is so modest that it does not infringe upon space alloted to anything else, but is content with the fence-corners, dry marshes, and other waste-places where it can be seen gracefully lifting its hat, and nodding its golden head to its welcome guests—the busy bees.

This has been quite a good honey season for this section, though not nearly as good as we used to have in days of yore. My bees averaged nearly 60 pounds of comb honey per colony, spring count, and I increased them 40 per cent. All are well supplied with stores for winter.

B. T. DAVENPORT.

Auroraville, Wis., Oct. 27, 1889.

Golden-Rod His Favorite.

In regard to the golden-rod, I would say that when I was living in Illinois, I had 85 colonies of bees, and I must say that the golden-rod honey I got in the fall was the finest of all the fall honey, and I obtained lots of it, too. It was my favorite for my own use, and I would not eat any other as long as the golden-rod lasted. If I had 50 votes to cast, I would give them all for golden-rod as the national flower.

JOHN BOERSTLER.

Vashon, Wash. Ter.

Big Stock Farms and Stakes.

The largest breeding establishment in America for thoroughbred horses is the Belle Mead stock farm, in Sumner county, Tenn. It contains 4,000 acres. The richest stakes ever won in America were the Peyton, run at Nashville in 1843, and the Futurity, run at New York in 1888. Each was worth $41,000 to the winner. The Futurity was for 2-year-olds, and was won by Proctor Knott, owned by Bryant & Scroggins, of Kentucky. This horse won the largest stakes of that season, the sum reaching $69,780, which is the largest amount ever won by a 2-year-old in a season.

Snow Flakes.

The lightness of snow flakes is the result of their surface being so great when compared with their volume, and is accounted for in some degree by the large quantity of air amid their frozen particles. Snow flakes contain about nine times as many volumes of air, entangled, so to speak, among their crystals, as they contain water. Very fine and lightly deposited snow occupies about twenty-four times as much space as water, and is from ten to twelve times lighter than an equal bulk of that fluid.

A Big Valley.

The valley of the Amazon is larger than that of the Mississippi, the former river draining 2,330,000 square miles and the latter 1,244,600 square miles. The Amazon drains a greater area than any other river on the globe.

United States Population.

The present estimated population of the United States is 64,000,000. The annual growth by natural increase and immigration is placed at about a million. The estimated foreign population is not far below 14,000,000.

Be not slow in common and usual acts of devotion and quick at singularities; but, having first done what thou art bound to, proceed to the extraordinaries of religion as you see cause.—Jeremy Taylor.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, $1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels	$1.50	$2.00	$2.25
500 Labels	2.00	3.00	3.50
1,000 Labels	3.00	4.00	5.00

☞ Samples mailed free, upon application.

Hastings' Perfection Feeder.—This excellent Feeder will hold a quart, and the letting down of the feed is regulated by a thumb-screw. The cap screws securely on. It is easy to regulate—either a spoonful or a quart—and that amount can be given in an hour or a day, as desired. By it the food can be given where it is most needed—just over the cluster. Not a drop need be lost, and no robber bees can get at it. A single one can be had for 40 cents, or a dozen for $3.50, and it can be obtained at this office. Postage 10 cents extra.

International Bee-Convention.—The Pamphlet Report of the Columbus, Ohio, Bee-Convention can be obtained at this office, by mail, postpaid, for 25 cents. This pamphlet contains the new bee-songs and words, as well as a portrait of the President. Bound up with the history of the International Society, and a full report of the Detroit, Indianapolis and Chicago conventions, for 50 cents, postpaid.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

Always Mention your Post-Office County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

Having a Few extra sets of the AMERICAN BEE JOURNAL for the years 1887 and 1888, we will supply both these years, and 1889 and 1890, for $3.00, until all are sold. Or we will send 1888, 1889 and 1890 for $2.50, all by mail, postage paid. These are very valuable, and those who have not yet read them should lose no time in securing them.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; sent by mail, add 1 cent each for postage.

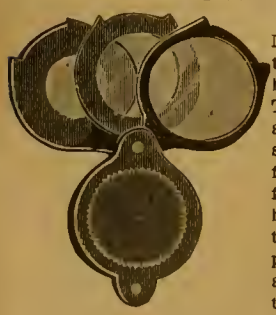
We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00...	
and Gleanings in Bee-Culture	2 00....	1 75
Bee-Keepers' Guide	1 50....	1 40
Bee-Keepers' Review	1 50....	1 40
The Apiculturist	1 75....	1 65
Bee-Keepers' Advance	1 50....	1 40
Canadian Bee Journal	2 00....	1 80
Canadian Honey Producer	1 40....	1 30
The 8 above-named papers	5 65....	5 00
and Langstroth Revised (Dadant)	3 00....	2 75
Cook's Manual (**old edition**)	2 25....	2 00
Doolittle on Queen-Rearing	2 00....	1 75
Bees and Honey (Newman)	2 00....	1 75
Binder for Am. Bee Journal	1 60....	1 50
Dzierzon's Bee-Book (cloth)	3 00....	2 00
Root's A B C of Bee-Culture	2 25....	2 10
Farmer's Account Book	4 00....	2 20
Western World Guide	1 50....	1 30
Heddon's book, "Success,"	1 50..	1 40
A Year Among the Bees	1 75....	1 50
Convention Hand-Book	1 50....	1 30
Weekly Inter-Ocean	2 00....	1 75
Toronto Globe (weekly)	2 00....	1 70
History of National Society	1 50....	1 25
American Poultry Journal	2 25....	1 50

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.



Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

A Handsome Present.—As the convention season is now on hand, we will make every subscriber this good offer: Go and call on your neighbor who keeps bees and ought to take the BEE JOURNAL. Get his subscription and one dollar for a year; send it to us, and we will *present* you a copy of the Convention Hand-Book, by mail, postpaid, for your trouble. Here is a grand chance for all to get a valuable book without costing them a cent!

Every Hand-Book contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with subjects for discussion. They sell at 50 cents each, and are nicely bound in cloth covers.

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.

Honey and Beeswax Market.

KANSAS CITY.

HONEY.—White clover and linden 1-lbs., fancy, 14@15c.; good, 13@14c; dark, 12c; the same in 2-lbs., 13@14c.; dark, 12c. Extracted, white, 8c.; dark, 7c. Demand is good. Sales large for this time of year.
Sep. 27. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—We quote: In one-lb. sections, 16@18c.; off colors, 14@16c. Extracted, 7@8c.
BEESWAX.—20@25c.
Sep. 20. J. M. CLARK COM. CO., 1421 15th St.

NEW YORK.

HONEY.—Extracted, white clover, basswood, orange blossom and California, 8c.; buckwheat, 6 cts.; common Southern, 65@70c. per gallon. Demand is good. Comb honey, fancy white 1-lbs., 16c.; 2-lbs., 14c. Fair 1-lbs., 14c.; 2-lbs., 11@12c. Buckwheat, 1-lbs., 11@12c.; 2-lbs., 10@11c. Demand very good for fancy white 1-lbs., and buckwheat 1-lbs.
BEESWAX.—22c.
Oct. 2. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—It is arriving freely and we note some little accumulation, but all will be wanted later on. White clover 1-lbs., according to style of package and appearance, 13@15c. Dark 1-lbs., 10@11c.; 2-lbs., 8@9c. Extracted is in light demand, values ranging from 6@8c., depending upon the style of package, quality, etc.
BEESWAX.—25c.
Sep. 21. S. T. FISH & CO., 189 S. Water St.

NEW YORK.

HONEY.—It is in good demand. We quote: Fancy white 1-lbs., 15@16c.; 2-lbs., 13@14c. Fair white 1-lbs., 13@14c.; 2-lbs., 11@12c. Buckwheat 1-lbs. 10@11c.; 2-lbs., 9½@10c. Extracted, basswood and clover, 8c.; orange blossom, 8½c.; buckwheat, 6c.; California, 7½c.; Southern, 72½c. per gallon.
HILDRETH BROS. & SEGELKEN,
Oct. 11. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote: Fancy 1-lbs., 16@17c.; fair, 14@15c.; 2-lbs., 15@16c. Extracted, 8@9c. Market is in fairly good condition, but we are getting some of the odd grades from Western New York, Michigan and Wisconsin, and it is not arriving in very good condition, making it hard to sell.
BEESWAX.—None on hand.
Oct. 21. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—A quiet but steady demand for choice comb, at 14@16c. Fair demand for extracted at 5@8c
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Oct. 21. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—Receipts are very light, and demand is increasing. We quote: White 1-lbs, 13@14c.; dark, 10@12c.; white 2-lbs, 12@13c.; dark, 10@12c. Extracted, white, 7@8c.; dark, 6c.
BEESWAX.—None in market.
Oct. 12. CLEMONS, CLOON & CO., cor 4th & Walnut.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

Money in Potatoes, by Mr. Joseph Greiner. Price, **25** cents, postpaid. This is a complete instructor for the practical potato-grower, and explains the author's new system in 40 interesting lessons. It is for sale at this office.

A Favorable Word from any of our readers, who speak from experience, has more weight with their friends than anything we might say. Every one of our readers can lend us a helping hand, in this way, without much trouble.

The Date on the wrapper label of your paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to carry the date another year ahead.

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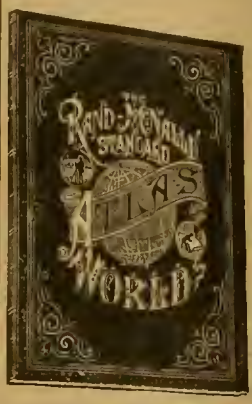
To any one sending us, direct to this office, **Five NEW Subscribers** for one year, with $5.00 (renewals not to count), we will *present* this beautiful Atlas, by mail, postpaid:



This ATLAS contains large scale Maps of every country and civil division upon the face of the Globe.

It is beautifully illustrated with colored diagrams, showing the wealth, the debt, the civil condition of the people, chief productions, the manufactures and the commerce, religious sects, etc., and a superb line of engravings of historical interest and value, together with many new and desirable features which are expressly gotten up for this work—among which will be found a concise history of each State.

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This magnificent Art Portfolio is in size just 11x14 inches, and besides a picture of Gustav Dore, the great French Artist, it contains the following beautiful engravings: Expulsion from the Garden of Eden—Entering the Ark—Noah Cursing Ham—Samson and Delilah—Ruth and Boaz—Death of Saul—The Judgment of Solomon—Daniel in the Lion's Den—Daniel Confounding the Priests of Baal—The Nativity—Christ Healing the Sick—Sermon on the Mount—The Disciples Plucking Corn on the Sabbath—Jesus Walking on the Water—The Agony in the Garden—Death of the Pale Horse. Seventeen handsome full page plates under one cover.

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Romney, Ont., Canada.

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JOYFUL News for Boys and Girls! Young and Old!! A NEW INVENTION just patented for them, for Home use!
Fret and Scroll Sawing, Turning, Boring, Drilling, Grinding, Polishing, Screw Cutting. Price $5 to $50.
Send 6 cents for 100 pages.
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Mention the American Bee Journal.

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AND LIVE STOCK JOURNAL

IS THE DRAFT HORSE JOURNAL OF AMERICA.
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T. Butterworth, Pres't,
Western Agriculturist Co., Quincy, Ill.
43A3t—8M3t
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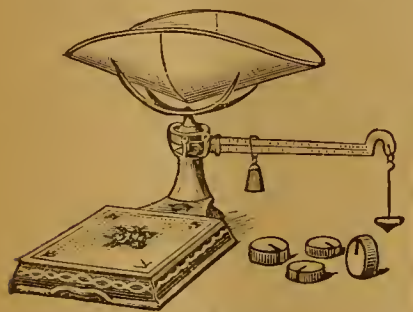
The Union or Family Scale.



This Scale has steel bearings, and it weighs from ½-ounce to 240 pounds. Price, with a Single Brass Beam, as shown in the illustration, $3.00. With Double Beam for taking the tare, $3.50.

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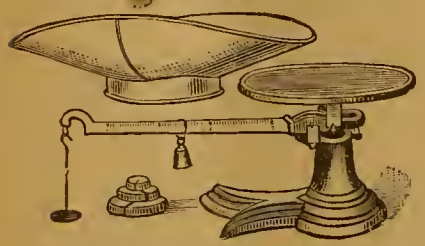

This little Scale is made with steel bearings, and a brass Beam, and will weigh accurately ¼-ounce to 25 pounds. It supplies the great demand for a Housekeeper's Scale. Prices:

Single beam,	no scoop	$2.00.
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☞ All orders filled promptly.

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FERRIS PUBLISHING CO.,
43D3t 481 Broadway, ALBANY, N. Y.
Mention the American Bee Journal.

EXTRACTED HONEY

FOR SALE.

WE have a Large Quantity of CHOICE WHITE **EXTRACTED HONEY** For Sale, in kegs holding about **200 pounds** each, which we will deliver on board the cars at **8 Cents** per pound. Orders are solicited.

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POULTRY, If you want to see one of the best Poultry Magazines that is published, send 6 cents to ROBT. A. BRADEN, Dayton, Ohio, for a Sample Copy of the OHIO POULTRY JOURNAL.
43A3t ☞ It is Grand ! ☜
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HONEY

WE are now ready to receive shipments of **HONEY,** and would be pleased to open correspondence. Liberal advances made on consignments. Let us hear from you, as we can render prompt returns at the top market values. Reference on file with the American Bee Journal. **S. T. FISH & CO.,**
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GLASS PAILS

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THESE Pails are made of the best quality of clear flint glass, with a ball and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen,	.....	$1.60
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DISCOUNT NOTICE.

DURING the months of October, November and December I offer a **DISCOUNT of 10 to 6 per cent.** for GOODS purchased for next season's use.

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WE are now prepared to furnish Wakeman & Crocker's **PRESS for putting together One-Piece Sections**—at wholesale and retail. Price, **$2.00,** by express. By the dozen—rate given upon application.

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British Bee Journal

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IS published every week, at **6s. 6d.** per annum. It contains the very best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley Herts, England

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WE CAN now furnish the **Van Deusen** EXTRA-THIN Flat-Bottom FOUNDATION put up in 25-lb. Boxes, in sheets 16½x28 inches, at **$12.50** per box. **12 ft.** to the lb.

☞ The above is a **special offer,** and is a **Bargain** to all who can use that quantity.

All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—**60 cents** per lb.

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FOR

Packing Bees for Winter.

THIS consists of small pieces about the size of a pea, and is an excellent thing for packing Bees in winter. Prices: In original packages of 100 pounds, $4.00, measuring 14 bushels.; smaller quantities, 10 cents per lb.; or a seamless sack, containing 15 lbs., $1.00.

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Honey Almanac for 1890.

JUST the thing needed to create a **demand** for HONEY at home. Bee-keepers should scatter it freely. It shows the uses of Honey for Medicine, Eating, Drinking, Cooking, for making Cosmetics, Vinegar, etc.; also uses of BEESWAX. Price, 5 cts.; 100 for $2.50; 500 for $10.00; 1,000 for $15.00. The Bee-Keeper's CARD will be printed on the first page without extra cost, when 100 or more are ordered at one time. Address,

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Should send for my circular. It describes the best Hives, the best Cases, the best Feeders and the best Methods. Address,

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SECTIONS! SECTIONS! SECTIONS!

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182 & 184 S. Clark Street, Chicago, Illinois.

WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD
PUBLISHED BY
THOS. G. NEWMAN & SON,
CHICAGO, ILL.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Nov. 16, 1889. No. 46.

EDITORIAL BUZZINGS.

☞ Mr. C. Theilmanun met with an accident lately. His horses ran away, and he was thrown out of his wagon, and broke his collar-bone. It has been "set," and he is recovering.

☞ The *Guardian*, New Castle, Pa., having lately published one of the floating sensational articles about "Bees having been declared a nuisance in New York," Mr. T. S. Sanford sent the editor of that paper an editorial from the BEE JOURNAL on the matter, and it was published in the *Guardian* of Oct. 31, with Mr. Sanford's remarks as follows:

EDITOR GUARDIAN:—The following taken from the AMERICAN BEE JOURNAL refers to an item appearing in your paper a few weeks ago, regarding bees being declared a nuisance in the courts of New York. This case will be carried to the Supreme Court and defended by the Bee-Keepers' Union. The Union has never lost a suit it has defended, and it is worthy the support of all bee-keepers.

It is the duty of bee-keepers everywhere, when they notice in their local papers articles which do injustice to the pursuit, to refute them at once in the papers where they appeared—as Mr. Sanford has so nobly done.

☞ Mr. S. L. Watkins has withdrawn from the *Western Apiarian*, which will hereafter be edited and published by Mr. Frank E. McCallum. It has reached its fifth number, and we hope it will succeed—but it is an up-hill business to establish any new periodical, and requires lots of money to sustain it until the point is reached when it will pay expenses. Its editor promises to publish it for one year, if it takes all the money he has or can raise in the world. He is *plucky*—that is certain.

Honey Almanac.

Its 32 pages are filled with interesting facts, figures and suggestions concerning the uses of Honey for Food, Beverages, Cooking, Medicines, Cosmetics, Vinegar, etc. Also, its effects on the human system are tersely noted; a brief refutation is given of the Wiley lie about manufactured comb honey; a short dissertation sets forth the mission of bees in fertilizing the flowers, and increasing the fruit product. Instead of being an injury to fruit, bees are the fruit-growers' best friends.

Beeswax, its uses, how to render it, and its importance as a commercial product, is described, and 17 useful Recipes are given.

Each alternate page is an illustrated calendar for the month—making a complete Almanac for the year 1890.

Here is what is said of it by those who have seen the Honey Almanac:

The Honey Almanac is here. Please allow me to congratulate you, and the bee-keepers as well. This ought to aid every bee-keeper to the easier and better disposal of his honey. You have stowed between these covers very much valuable information—just what we need to scatter broad-cast. I hope they will "go like honey-cakes."—A. J. Cook, Agricultural College, Mich.

The "Honey Almanac" to hand. Allow me to say that I believe it will mark a new era with bee-keepers, as regards the selling of our product, and meets a *long felt want*. Patent medicine men have "got rich" by this way of advertising their wares, and I see no reason why we as apiarists should not take advantage of such "pointers."—G. M. Doolittle, Borodino, N. Y.

The "Honey Almanac" is something unique. It is a fine thing to have so many honey recipes, in such compact form, always ready for reference. It would be a good thing to have such things circulated among customers.—C. C. Miller, Marengo, Ills.

The new "Honey Almanac" should fulfill every object sought by its projectors. It would be difficult to conceive of a better plan to develop and enlarge a home market for our products than the distribution of these Almanacs. The interest you have manifested in bee-half of bee-keepers in this matter, should meet with a hearty response.—G. L. Tinker, New Philadelphia, O.

Your Honey Almanac is just received. My first thought was, "How in the world can they furnish it at the prices quoted?" The recipes, useful suggestions, and valuable information it contains is worth many times its cost, and must be of great value to the public and the bee-keeper, if scattered broad-cast by him. I hope you will sell a million before the first of January.—Geo. E. Hilton, Fremont, Mich.

The "Honey Almanac" is received. Of the many Almanacs published, this is surely the *best* and most *useful* of all. It will assist greatly in creating a demand for the purest and best of sweets—honey.—J. W. Buchanan, Eldora, Iowa.

The "Honey Almanac" for 1890 is received. There is much valuable matter contained in it, interesting alike to the honey-producer as well as the consumer. I believe it would be greatly to the interest of every honey-producer to circulate the "Honey Almanac" freely throughout the community where he lives. I hope every bee-keeper will see to it that this is done.—J. W. McKinney, Camargo, Ills.

I have received the Almanac, and it just fills the bill—something we should have had before.—J. W. LeRoy, Rio, Wis.

I think that the Honey Almanac is the best way of advertising our honey yet thought of.—G. C. Spencer, Panton, Vt.

I have examined the Honey Almanac, and find it a capital hit. If one's home market be lifeless, a liberal distribution of the Almanac cannot fail, it seems to me, to give it life.—R. L. Taylor, Lapeer, Mich.

The Honey Almanac is received, and I consider it a triumph in our line. Its usefulness as a collection of recipes ought to insure its preservation in every home, and thereby increase the demand for honey *immensely*.—J. M. Shuck, Des Moines, Ioa.

The "Honey Almanac" is received. It is very nicely gotten up with many valuable recipes, and the calendar part is very handily and plainly put together, intervened by honey recipes, so that by looking to find the date, any one can hardly fail to notice the honey literature, and thereby do the work that the Almanac is intended to do. Every producer of honey should order some of these helping-means to sell and get good prices for honey—as the money paid for them will surely bring big returns, if distributed over our whole land.—C. Theilmann, Theilmanton, Minn.

The "Honey Almanac" for 1890 is received. I have perused it, and find in it a most apposite work for the dissemination of knowledge pertaining to bees, honey, wax, and other useful information.

I am of the opinion that any household which may possess this Almanac, where there was a paucity of facts concerning honey, its important qualities, and in the matter of the manufacturing of the so-called "artificial comb honey" previous to obtaining it, will, after perusing and digesting its contents, rebuke with a severe and just hand all articles emanating from the reporter's imaginative brains.

The book contains enough of facts aside from bee-keeping to make it doubly valuable, which, together with its neatness, clean printing, etc., makes it worthy of its name as an Almanac.

I hope that the sales of the "Honey Almanac" will be colossal, and that it will produce an immensity of good among the people of our grand and glorious United States, towards the increasing of the consumption of that delicious liquid—honey.—H. K. Staley, Cincinnati, O.

This Honey Almanac places in the hands of bee-keepers a powerful lever to revolutionize public sentiment, and create a market for honey, by making a demand for it in every locality in America.

Wisdom would dictate that a million of them be scattered by the first of January.

Prices: $2.50 per 100; 500 copies for $10.00; 1,000 copies for $15.00, delivered at the freight or express office here. The bee-keeper's Card will be printed upon the first page, without extra cost, when 100 or more are ordered at one time. Postage, 40 cents per 100 extra. All orders can now be filled as soon as received.

☞ Whoever before heard of a set of the Waverley Novels being sold for less than $12.00? Just think of our offer of either these or the Works of Dickens, with the BEE JOURNAL until Dec. 31, 1890—all for $2.10! See the last page of this paper.

Misrepresenting Comb Honey.

On page 691 we mentioned the fact that we had written a letter to the editor of the Chicago Daily *Herald*, requesting him to correct his misstatement about "Manufactured Comb Honey." He put this heading to our letter, and added comments as follows:

Adulterated Comb Honey.

Editor of The Herald:—In a recent issue, under the head of "Short Answers," you say: "There is such a thing as manufactured honey. The comb is made out of paraffine." As you ought to know something about the matter you so positively assert, I call for the proof. A member of the National Bee-Keepers' Union offers $1,000 for a sample of the bogus "comb honey"—with combs made of paraffine and filled with glucose by machinery, etc., as the newspapers sensationally affirm. Will you please to either produce the product, give proof of its manufacture by saying where it is done, and by whom, or else make the correction in *The Herald?* I am prepared to prove beyond contradiction that your statement is wholly false and untrue. THOMAS G. NEWMAN.

[*The Herald* very gladly gives this correspondent its authority on the point in question. In a work entitled "Food Adulteration and Its Detection," by Jesse P. Battershall, Chemist in the United States Laboratory, New York city, the author says at page 122: "Occasionally the bees are also supplied with a ready-made comb consisting at least partially of paraffine." He also states that some bee-keepers place vessels of glucose near the hives for the bees to feed on. Other articles of a similar character are used by which the bees themselves are made to adulterate their own honey. This author further says, at page 128, "Eighteen out of thirty-seven samples of strained and comb honey examined in 1885 by the Massachusetts Board of Health, were adulterated with glucose and ordinary syrup." It will thus be seen that the statement of *The Herald*, that comb honey is adulterated, is proved by the highest authority.]—*Editor of The Herald.*

Thereupon we wrote this reply, for which we hope he will soon find room:

Manufactured Comb Honey.

Editor of The Herald:—In your issue of Oct. 27, you made this statement: "There is such a thing as manufactured honey. The comb is made out of paraffine." This I denied, and called for the proof, by your submitting at least a sample of the product (manufactured comb honey), and stating where and by whom it was made.

As an incentive for you to produce a sample of the "manufactured comb honey," I informed you that a member of the "National Bee-Keepers' Union" offers a thousand dollars for a sample of it, *i. e.*, "combs made by machinery, filled with glucose, and sealed over by a machine made for that purpose." Prove your assertion if you can, and claim the money. *It is waiting for you.*

In *The Herald* of Nov. 5, you attempt to cover up the point at issue by heading your reply with the words, "Adulterated Comb Honey," and quoting from a New Yorker's book, entitled "Food Adulteration."

The real point at issue is not the adulteration of honey, but "the manufacture of comb, filling and sealing it over by machinery made for that purpose," (as a certain Professor expressed it) "without the aid of bees." Concerning this I asserted that "I am prepared to prove beyoud contradiction that your statement is wholly false and untrue." Please stick to the point, and either "produce a sample of the product, give proof of its manufacture by saying where it is done, and by whom, or else make correction in *The Herald*."

In 1887 there was a failure of the honey crop, and the finest opportunity was presented for the markets to be filled with "manufactured comb honey"—if such existed! I dared those who asserted that such was in existence, to produce a single pound of it. And so far not a single ounce of it has been submitted—even though $1,000 have been offered for a sample of the "stuff," and the information where and by whom it was manufactured.

What a chance was then presented for these mythical manufactories to "run day and night," and supply the demand for honey in the comb! But their failure to do so proves that they do not exist, and exposes the falsity of all the assertions about manufactured comb honey—in the sensational press.

The fact that bees will not touch glucose except on the verge of starvation, is sufficient refutation of the statement of Mr. Battershall, that bee-keepers compel the bees to "adulterate their own honey" by placing "vessels of glucose near the hives," etc. His assertion that "18 out of 37 samples of strained and comb honey, examined in 1885 by the Massachusetts Board of Health, were adulterated with glucose and ordinary syrup," may have some foundation, so far as liquid honey was concerned, *four years ago*, when the price of honey was much higher than glucose—but *now* the tables are turned, and honey can be purchased as low as glucose. *When it does not pay to adulterate, there is no incentive for doing it*, and but little, if any, adulterated liquid honey is now on the market.

The author of the silly story about "the manufacture of comb honey by machinery made for that purpose, without the aid of bees," is Prof. H. W. Wiley, a letter from whom is in my possession, saying that he "wrote it as a scientific pleasantry," never thinking that any one would be silly enough to think that it was a sober fact or truth! On the contrary, your authority from New York, and a lot of other professors, editors, doctors, lawyers, statesmen and ministers have quoted from Wiley's *lie* about "the manufacture of comb honey by machinery," etc., supposing they had some authority to lean upon! But, alas, the original instigator of the falsehood confesses to its untruth, over his own signature.

Now, Brother Editor, (for I am not a stranger to the trials, labors, and courtesies of the craft—having for a quarter of a century held the honorable position of Editor on a daily and weekly paper, as well as a class periodical), I feel sure that you have been deceived by a "wily" falsehood—and will cheerfully make the *amende honorable.* It is but *just* to correct a wrong statement, especially when a failure to do so will injure an honorable pursuit, by casting a reflection and doubt upon its product. Many of its devotees are your constant readers—among them

Yours Respectfully,
THOMAS G. NEWMAN.

A reporter of *The Herald* called upon us last week for an interview, which we hope he will write up and insert in *The Herald* at an early day. We gave him pointers, described modern apiarian inventions, showed him Prof. Wiley's letter, acknowledging that there was no foundation for his silly story about "manufactured comb honey," and asserting that it was simply a "scientific pleasantry," etc.

The reporter expressed much surprise that the Professor should have done such a foolish thing as to write an article misrepresenting an industry, and then take such a long time before even offering an explanation, or making a correction.

What the outcome of this interview will be we know not, but hope *The Herald* will be honest enough to give the real facts in the case to its readers. All we ask is truth and justice—we want nothing else.

Doolittle on Queen-Rearing.

Queens can be reared in the upper stories of hives used for extracted honey, where a queen-excluding honey-board is used, which are as good, if not superior, to Queens reared by any other process; and that, too, while the old Queen is doing duty below, just the same as though Queens were not being reared above. This is a fact, though it is not generally known.

If you desire to know how this can be done—how to have Queens fertilized in upper stories, while the old Queen is laying below—how you may *safely introduce* any Queen, at any time of the year when bees cay fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing;" a book of 170 pages, which is nicely bound in cloth, and as interesting as any story. Price, $1.00.

An edition in strong paper covers is issued for premiums. It will be mailed as a present to any one who will send us *two* new subscribers to either of our JOURNALS.

The Queen-Bee's Wedding.

BY WILLIAM H. DONOHO.

There's a wedding among the good people—
The Queen of the Bees is the bride;
She stands in the midst of her maidens,
The fairest of all, and their pride.

Her veil is the mist of the morning,
It sparkles with silvery dew;
Her crown is of fresh orange blossoms,
Her sceptre is yielded to you.

To you she has chosen her consort,
The monarch she'll henceforth obey;
Then rule o'er her happy dominions
With scarcely perceptible sway.

Remember the treasure she brings you
Of innocence, beauty and truth;
It calls for a life of devotion,
To fill out the dreams of her youth.

The katydids chirrup their greeting,
The beetles and bats wheel at play;
The amorous breath of the flowers
Is sweeter than ever in May.

The drowsiest bee in the hamlet
Is buzzing with eager delight;
The veriest drone is awakened,
Resisting his slumbers to-night.

The butterflies come from their bower,
The fireflies flash in the grove;
The turtledoves flutter their pinions
And languidly murmur their love.

The humming-bird whirrs from the jasmine,
The nightingale's off from the rose;
The wood-nymphs and naiads and fairies
Have left all their haunts in repose.

Titania—Queen of the Kingdom—
With Ariel hovers in air;
Luriel, the syren of sea-nymphs,
Is braiding her locks to be there.

Arcadia's wild with commotion,
And Comus and all of his crew,
With Satyrs and Fauns and Bacchantes
Are making the greatest ado.

Above and beneath and around us
Are myriad presences bright;
The spirit of love will evoke them—
They'll be at the wedding to-night.

The Queen of the Bees is to marry,
Her Consort is there in his pride;
She stands in the midst of her maidens,
And fairest of all is the bride.

—*Selected.*

QUERIES and REPLIES.

The Anatomy of Italian and German Bees.

Written for the American Bee Journal

Query 667.—Is there any difference in the anatomy of Italian and German bees?—N.

Yes.—A. B. MASON.

Ask Prof. Cook.—J. M. HAMBAUGH.

I think not.—EUGENE SECOR.

Not that I know of.—G. L. TINKER.

I leave this question to Prof. Cook.—G. M. DOOLITTLE.

I do not understand the question.—R. L. TAYLOR.

I presume not.—M. MAHIN.

See Prof. Cook's answer to this.—J. M. SHUCK.

No. The only difference is in color, and perhaps in size.—C. H. DIBBERN.

It is claimed that the Italians have longer tongues.—C. C. MILLER.

The Italians are slightly larger, but the difference is not great.—DADANT & SON.

That is too deep a question for me. Prof. Cook is the man to answer that.—JAMES HEDDON.

None that I ever saw mentioned. I hope that this question will be fully answered by some of our entomologists.—P. L. VIALLON.

I have never dissected and examined the two races, so I cannot say. I should judge that there is not.—MRS. L. HARRISON.

It is claimed that the Italian bees have longer tongues than the German bees (?). If they have, there is that much difference.—MAHALA B. CHADDOCK.

It is my belief that they are constructed physiologically the same, with perhaps one exception—the Italian tongue is generally conceded the longer.—WILL M. BARNUM.

Yes, in the length of the tongue; possibly in the size of the honey-stomach, etc., though I only know as to the tongue.—A. J. COOK.

While there is no anatomical difference in the two varieties, there is a very marked difference in the external contour of the abdomen. The abdomen of the Italian is more tapering than that of the black or German bee.—J. P. H. BROWN.

No difference discoverable to the common observer, and perhaps to nobody else. A mere difference in length of members of the body, etc., does not constitute a physiological difference. Come to think of it, there may be a difference in "anatomy," for it is vowed by some that they have bees that "make honey" by digestion—mine do not; they gather it from flowers.—G. W. DEMAREE.

There is no more than between a German and an Italian man. The organs are the same; the proof being that they will cross with each other, which would not be the case were they not anatomically and physiologically alike.—J. E. POND.

No. The word "anatomy" is defined to mean "the structure of an organized substance." If there was any difference in this, it would long ago have been learned by dissection. The mere variation in the length of the tongue, or outward appearance of the abdomen, do not constitute an anatomical difference, any more than the length of arms or shape of head would make a difference in the anatomy of men. A difference in the anatomy can only be learned by dissection.—THE EDITOR.

Red Clover as a Honey-Producing Plant.

Written for the American Bee Journal

Query 668.—Is red clover a honey-producing plant, to any appreciable extent?—L.

Yes.—A. B. MASON.

As a rule, no.—M. MAHIN.

Yes, on occasional years.—R. L. TAYLOR.

Not in Louisiana.—P. L. VIALLON.

No, not in my locality (New York).—W. M. BARNUM.

It has not been with me (Illinois).—J. M. HAMBAUGH.

No, but it would be, if bees could work on it at all times.—DADANT & SON.

Yes, but common bees find the tubes too long to readily reach the nectar.—C. H. DIBBERN.

Yes, the best of all the 40 varieties of clover on our continent. All that we need is, the bee that can reach it.—MRS. L. HARRISON.

Yes, but it is often to the bees, like the gold in Nature's great retorts—out of human reach.—J. M. SHUCK.

Yes, undoubtedly. Like all other honey-producing plants, it probably yields better in some seasons than in others.—EUGENE SECOR.

Certainly. You can pull off the little tubes, and suck the nectar out of it.—C. C. MILLER.

It is some years, when the flowrets of the heads are short from a partial drouth.—G. L. TINKER.

Red clover produces a quantity of nectar, but the *Apis mellifica* are able to obtain but very little from it.—H. D. CUTTING.

The second crop, and the mammoth variety, do often give considerable honey; especially to the yellow races of bees.—A. J. COOK.

In some seasons it is, and in some it is not. The humble, or bumble, bee gets a large portion of its stores from this source.—J. E. POND.

Yes. It produces four times the nectar that the white clover does, in this locality. The trouble is that the corolla is so long that the bees cannot reach this nectar, as a general rule.—G. M. DOOLITTLE.

It is a plant that yields large quantities of honey; but the nectaries of the flower are so deeply situated, that it takes a bee with a long proboscis to reach it.—J. P. H. BROWN.

I am glad that you asked that question, for I believe that mankind has been fooled by the idea that there is an ocean of honey in red clover, "if the bees could only reach it." As soon as I had bred up a strain of bees that worked readily on red clover, I demonstrated that it does not contain as much honey as white clover. I think that I am safe in saying that it is not nearly as good a honey-yielder. It sometimes does a fair business, however, when white clover is not yielding much.—JAMES HEDDON.

Yes, it is. It is a splendid honey-producer. Pull off the tubes from a head of clover, and suck them, if you want the proof. All that we lack is a bee with a tongue long enough to reach the nectar.—MAHALA B. CHADDOCK.

Red clover certainly produces nectar, to a liberal extent; but the tubes of the flower are too deep for the tongue of the *Apis mellifica*, except when they are more than usually well filled under favorable conditions. About once in three years, my Italians gather honey to a very appreciable extent, from red clover. The honey from red clover is the lightest in color, of all the grades of honey known to me. I have a sample taken this year, that is literally white. It "candies" more readily than any other honey known to me, but it never "granulates."—G. W. DEMAREE.

Yes; it is one of the best, if not the best of all honey-producing plants. We suppose that the question was intended to be, "Do honey-bees get honey from red clover to any appreciable extent?" To that question the answer is that it is rarely done—when it is "stunted" by drouth, and the "shortened" corolla allows the bees to get at it. The honey is of excellent color, quality and flavor, and generally furnishes the humble-bees with abundant stores.—THE EDITOR.

Essays on Extracted Honey.

We offer Cash PRIZES for the best essays on "Extracted Honey," each essay not to exceed 2,000 words in length, and must be received at this office before Jan. 1, 1890. The first prize is $5.00; the second, $3.00; and the third, $2.00. All essays received on this offer will become the property of the AMERICAN BEE JOURNAL, and is open for competition to its subscribers only.

CORRESPONDENCE.

WINTERING.

Investigating the Causes of Loss of Bees in Winter.

Written for the American Bee Journal

BY C. J. ROBINSON.

I have written on this subject heretofore, and I trust that it will bear continuation. Much more ought to be said, and some things repeated and examined in the strongest light to be found.

A post mortem investigation usually discloses the immediate cause of the subject's death. It may have been tubercle of the lungs; in such a case, unless the inquiry proceeds further, and finds the cause that produced the tubercles, but little is gained.

When bee-keepers find the cause of death of so many bees to be diarrhea, it behooves us, then, to look further, and, if possible, ascertain the cause or causes of bee-diarrhea. When we are not positive on any subject, we are apt to decide according to the evidence that makes the theory (or some preconceived notion of our own) possible—allowing it to take the place of direct testimony. Now my hope is, by thorough and intelligent investigation, to find the cause, or causes, and so counteract it, or them.

Among the many investigators who have acknowledged diarrhea as the immediate cause, some few have gone further, and hold that the malady is produced by the unhealthful quality of their stores—impure honey, immoderate use of pollen, fermented pollen, and so on; and to prove their conclusion correct, they claim that syrup, of refined sugar, when properly fed, exempts bees from the fatal disease. I have fed the syrup, and feel pleased with the result, but I have no faith in it further than its being a substitute for good honey.

Forty years ago I became satisfied that long terms of severe cold produced diarrhea in colonies other than strong ones that were in the most favorable condition as to food and clustering. Actual experience gave me the idea. Perhaps there are other causes that produce, or tend toward producing, the dire disorder; but it is *cold* that is *the* direct cause.

Father Quinby was authority (none more reliable), that it was periods of intense cold that brought on the dreaded diarrhea. That excessive cold periods are the predominating cause of diarrhea, is proved by the case of Mrs. Tupper many years ago. She took from a row of colonies that gathered their stores from the same field, each alternate one being removed to a cold, bleak situation, while the others were kept warm. The first perished with diarrhea, while the latter wintered well.

I think Mr. Heddon's "pollen theory" has some foundation in fact. While bees are eating much pollen, they are not in a condition to endure continued confinement, and when pinched with cold, digestion does not proceed normally; so, if the two unfavorable conditions (pollen and cold) be present, their food does not digest properly, producing disorder internally, and resulting, inevitably, in fatal disease commonly called diarrhea.

While bees feed on good honey, or purified sugar syrup, of the proper consistency, the whole is duly digested and assimilated; that is, all is converted into blood or juices of the bees, and the waste or impurities of the blood is eliminated through the pores of the external covering and lungs in a gaseous form.

But when bees feed on pollen, or poor honey, their condition is different; the pollen cannot be *all* digested, and the residue cannot be elminated in any way other than through the intestines as fecal matter. Then, in case the bees are kept in confinement for a considerable length of time, their intestines become surcharged with fecal matter, causing irritation, which is followed by virulent disease. For this reason, pollen is dangerous food while bees are passing through the unnatural ordeal consequent upon cold climates.

While bees are active, pollen is, perhaps, necessary as food; but while they are semi-dormant, pollen should be excluded, for the reasons before mentioned; and, because pollen being highly nitrogenous, it excites or stimulates activity at a time when bees should remain quiet, to be safe.

Food consumed by beasts generates heat, and they take it in proportion to the severity of the weather, to keep warm. Bees seem to act on the same principle; but as they are natives of warm climates, their structure is different—not adapted to the vicissitudes of extreme cold climates, and do not burn their food in digesting, to keep up warmth as animals do. It is exemplified when they have worked in the surplus sections until late in the season. Take off the unfinished sections on some cool morning, before all the bees have gathered into the hive; most of them will fill themselves with honey before they can be gotten out of the boxes. The result is, that the honey swallowed is not digested, and warmth is created, but discharged as feces from the bees scattered before they regain the cluster.

When bees are very quiet during severe cold, some must be on the outside of the cluster—and colder than those inside. In ordinary winter weather, it is so mild on many days as to enable them to generate heat enough to enable them to change positions with those inside. But when the weather continues very cold during weeks in succession, the bees on the surface of the cluster are benumbed, and unable to change places and get warm. Then it is that their food is not digested; their bodies become filled with feces, and they must leave to discharge it in and about their hives—the well-known diarrhetic discharges, which, whenever occurring, hope of safety vanishes—the bees are in death's grasp.

If diarrhea does not appear, and the weather continues cold, the colony continues to grow smaller, in proportion to the length of time and size of the colony. Some colonies maintain the proper temperature by having the honey so distributed that they can have empty cells near the centre, into which they may creep for mutual warmth, thus being more compact.

Bees can exist but a short time in cold weather, when between combs of sealed honey. They can, when properly clustered, endure any degree of cold for a time, providing that they have food within their reach. When made warmer, do not consider them safe, unless they are made warm enough, and remain so long enough to enable them to change places with those on the inside; otherwise the result is fatal.

If the foregoing is correct (and I can vouch that it is), it is evidence showing that among those who have housed their bees and lost them, there bees were not warm enough, even though in a cellar or other depository. I am aware that some will say that they have thus successfully wintered bees many times, proving to themselves beyond a doubt that their bees were warm enough, but not considering that the place that was warm enough in some certain winters, is not so every winter, because of the variation of cold terms as to duration of time.

A degree of temperature suitable for large colonies, is too low for small colonies; that is, large colonies will remain quiet in a temperature so low as to render it unendurable for small colonies.

Forty-five years, ago, before knowing of bees being put into special repositories, cellars or other places during winter, I conceived the idea of putting small colonies into my cellar—such colonies as would not go through

the winter on the summer stands. This I considered no risk of importance, but I feared to experiment in that way with good colonies. After seeing the advantages of wintering small colonies in the cellar, I put large ones in, and adopted that method. Mr. Moses Quinby also practiced cellar-wintering.

Our way of doing it was to turn the hives (boxes) bottom upward, with the top of the hive resting on something up from the cellar bottom, and a quilt or some cloth covered over the lower end of each hive, to keep the bees from leaving the hive. The small colonies—such as had not filled their hives with comb, and needed to be fed, I broke off the dry combs down to, or near, the cluster, and then placed pieces of sealed comb over the cluster, and the bees would move on to the feed. Such is the best practice with bees in box-hives. The cause of loss (often amounting to dreadful calamities) during winwinter seasons, should be understood as far as possible.

Richford, N. Y.

BEE-ESCAPE.

The Reese Bee-Escape for Getting Bees Out of Supers.

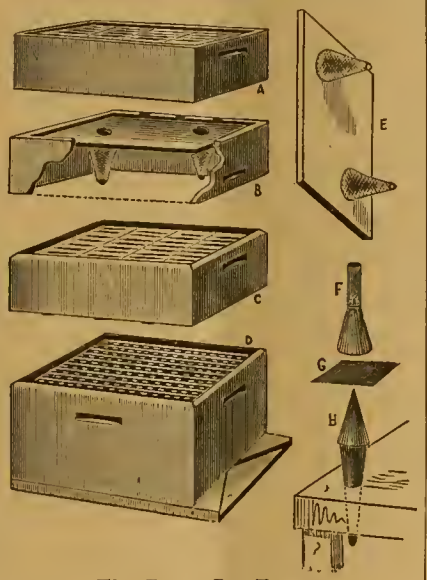
Written for the American Bee Journal
BY F. GREINER.

There seems to be some readers of the AMERICAN BEE JOURNAL who are not familiar with the Reese cone-case bee-escape. For the benefit of those, it might be well to reproduce what Mr. Reese says about it in *Gleanings* for January, 1888;

"The cone-case bee-escape is as follows: Take an empty surplus case that any bee-keeper may be using, for illustration the **T** super. Cut a board that will just fit evenly inside the case; bore two one-inch holes, one near each end; make two small cones of wire-cloth, just large enough to tack over the one-inch holes, and about 1½ inches high. Now make two more larger cones about 3½ inches at the base, and 3½ inches high, and tack over the smaller cones. This will leave a space between the smaller and larger cones; and each cone has a hole in its apex that will admit a bee. Fasten this board with cones near the bottom or top of the empty super, and the cone-case is ready for use. Now raise the filled super, and place between it and the brood-chamber this cone-case, with the cones pointing toward the brood-nest. In a few hours you may expect the full super all clean of bees, and not a cell uncapped."

The wire-cloth cone—the principle feature of the cone-case—can be used in other ways; for instance, when taking off honey from my chaff hives, I leave the full super with bees in the upper department in such a way as to stop all communication between the bees in the super and the bees in the brood-chamber. Through a ½-inch hole in the gable of the cover, and over which a cone is placed temporarily, the bees from the full super will all make their exit in a few hours, and even very young bees will readily find their way back into their parent hive, as the escape-hole is perpendicularly in line above the common entrance.

For convenience, I have a quantity of attachable cones, consisting of a small piece of board 2x3 inches, with



The Reese Bee-Escape.

an inch hole bored through, and a cone nailed over it; this device can easily be fastened with a tack or two, to any part of the hive, and has proved a great help to me in ridding supers of bees.

The most of my wide-frame supers which I use on single-walled hives, have a ½-inch hole bored in one end of them, for common closed by a button; over this hole I place an attachable cone, when the super is filled; I raise it and slip a honey-board (or oil-cloth would probably do as well), between the super and the brood-chamber, and in two hours the bees will usually have left. I have not found it necessary to use the double cone, still it may be safer to.

Now I would like to say that if Mr. Heddon practices a better plan than Mr. Reese has given us, I would like to have him prevail upon the inventor of that plan (see page 636) to describe it, and let his light shine. Thousands of bee-keepers who are working hard to make an honest living, will thank him for it. As far as I know, Mr. Reese has given us the best thing for the purpose, and I make the motion to extend to him our unanimous vote of thanks. Who seconds this motion?

Naples, N. Y., Oct. 8, 1889.

BEE-STINGS.

Results of Bee-Sting Poison in the Human System.

Written for the American Bee Journal
BY C. B. HILLS.

In reply to Mr. Duncan (page 685), I can say from quite an extensive experience, that I believe there are cases where bee-sting poison does in a greater or less degree cause impure-blood eruptions.

A few years ago, while handling a frame thickly covered with bees, I got several stings in the end of my thumb; as quick as I got my hands at liberty I scraped a knife over the end of the thumb—probably broke some stingers off; but whether it was their working into the flesh, or the poison they had injected, this much I am positive of, that from that hour it commenced to be inflamed, and in four days it was very painful.

A doctor examined it, pronounced it a felon, and thought that it would hasten it to lance it, which he did; it only discharged a little very dark-colored blood, and closed up, so I had it lanced again. It laid me up for four weeks, and when it did get well, it left the thumb partly useless for life.

The point that I wish to convey is this: There is no question but that the stings I received in the end of my thumb, were the direct cause of the felon; now may we not reasonably suspect that the poison injected into one's system, by repeated stings, in a measure—especially with some individuals—cause the afflictions, namely, boils, felons, carbuncles, etc.?

One thing in my own case: I have noticed that when I have received numerous stings, soon after I would be afflicted to a greater or less degree. If Mr. Duncan will look at Query No. 634, on page 358, he will see what some of the fraternity have to say on the subject.

I will say right here, to dispel the idea that some might have from reading the answers in that Query, that I do not, nor ever did, use tobacco or strong drink in any form,

Notwithstanding the minor drawbacks in bee-keeping, I take much pleasure, as well as profit, in bee-culture; and am indebted to the AMERICAN BEE JOURNAL for very valuable instructions in the pursuit.

Wellsville, N. Y., Oct. 30, 1889.

LAUGHABLE.

Amus Periwinkle's Kween—Du Beez Maik Hunny?

Written for the American Bee Journal

BY WILYUM SOCKS.

"When doekters disagree hoo shel deside?" Eye hev seen the abuv kwotashun in print nigh onto a 1,000 times, and ez no one seems to be abel tu deside the kwestyun, eye hev konkluded to deside it miself; and ez naybor Amus Periwinkle sez, "with out feer uv sucksessful kontradiekshun."

Amus Periwinkle iz mi neerest naybor. Sumthing over a year ago a swarm uv beez lit onto hiz kotton-wood tree, and he rapt a shawel round hiz hed, and went out and hived them in a empty sope box. In November, he poot them into hiz seller, and kept them thare untill abowt the tyme sugar-sap began to run, when he carryed them owt, and sot them into hiz back yard. But they dident du verry well all spring—the wukers dident eroud the entrans—and Amus began tu git oneesy about them. So wun day he saw Billy Grafton passing, and kalled him in tu look at hiz beez.

Billy Grafton livs about a mile owt on the rode tu Sleepy Holler, and keeps a good menny bea-hives. It dident taik him long tu find thet Amusses beez hed no kween; so he told Amus thet if heed kum out tu hiz playse, he wood sell him a good warrented kween.

In a week or two Amus went out tu git the kween; but it wuz a kold day, and Billy dident like tu open his hives for feer the beez mite stampeed, or sumthing; so he looked around to see if he cood find a kween lofing on the aliting-borde. Pretty soon he picked up a droan, and told Amus she wuz all rite.

Amus hed gon to skule several terms in hiz younger daiz, but his edikashun in entymollygy wuz sumhow negleekted, and he dident no a kween bea from enny uther kind uv a bug.

Thet same afternoon Amus kame to my hous, and invited me over tu hizzen, tu introdoos hiz kween for him. Eye acsepted the invitashun, and when he brot hiz kween out, holding the kaige between hiz hands tu keep hur warm, eye kood hardly keep from lafling az soon ez eye got site uv her. But, sez eye, "Amus jevver see a kween bea befour now?" "No," sez Amus; "this iz the furst wun eye ever sot ies onto. Sheez a buty, aint she?"

"Well," sez eye, "Amus, thet thares a mity helthy looking kween, but its mi beleef she want never lay no aigs nor maik no hunny." "Why?" sez he. "Sheez not thet kind uv a kween," sez eye. "But sheez warrented," sez he, "and eye payed a hull doller for her!" "Kaint help thet," sez eye; "sheez only a setter; sheel set all summer, but she wont never hatch nuthing." But Amus waz surtin she waz all rite, and eye sed no more.

My plan waz tu shoo her in at the entrans, but Amus thot she wood stay on the nest better if she wer left in the kaige; so eye set her thet way and kame home.

The neekst morning eye met Billy Grafton in the rode; he laffed, then eye laffed, then we both laffed; and thets all we sed, exeept thet it waz a fine day for beez. Amusses beez swarmed out one at a time, and gradyully disappeared; but neekst spring he is going to by a hull swarm.

But eye am digressin'. Eye hed in minde the kontrovessy now going on in the bea-paypers konserning hunny. Prof. Kook, uv the Meeshegan Kolledge, a bea-keeper of sevral 100 colloneys, and a gentleman hoo hez heertwofour stood hi in hiz professhun, hez writ a number uv peaces tu pruve thet hunny iz "digested neckter," which he ascertanes by a test with litmus payper.

Now, befour eye went into the beabizness for miself, eye suppozed thet hunny waz "digested neckter;" in faekt eye inklined tu thet opinyun konsidabel more than 45 degrees. Thet is wun of the original idees with a grate menny people. Thay think thet beez maik hunny out uv pawlen and wotter; and the modern idee, thet thay sip the neckter from the poseys and earry it tu thare hives, and bile it down with the heet uv thare boddeys, is sumpthing thet the avrage man or woman never thot ov. It kums to them, howsumever, after a few years pracktickel expeerens with beez. Tharefour eye klame thet Mister Kook is not the original diskuverer of thet hurrysy. "The prufe ov the pooding iz in the eeting ov it." So it iz with hunny, and no litmous payper kood konvins me tu the kontrary.

Take a peace ov litmus payper, or enny uther kind uv payper, and hold it up behind a 2-year-old hoss-kolt, and he will kick up hiz heels just too (2) feet. Tri the same exparement on a mool, and if he iz in hiz prime and feeling well, the result will be jist the same. In nuther kase iz the plane ov polerizashun turned eether tu the rite or left, but strate out, and the formoola is ritten exackly the same, $K1_3\ CK_2$.

Now this wood seem tu proov the mool a hors, but it dont. The origin of the mool reeches fur back into the misty heertoofur ov antiekuyty. He iz menshuned bi wun ov the anshent riters, hoo states thet a sertin yung man found hiz mools in the woods (Gen. xxxvi, 24). This proovs hiz grate antiekuyty; and we no posatively, from sertin karaekteristics pekular tu the beest, thet he iz a highbrid ov grate strength ov eendoorens and self-kontrole, and not a hors.

The highpothesis thet hunny iz digested neekter iz untenable, bekaws, furst, it iz kontrary tu natur; seekond, it iz not in keeping with thet artistickness in houskeeping for which beez are adepts in an eminent degree; thurd, the droans woodent allow it; forth, it iz an unpossybillyty, bekaws the stumiek ov the bea iz bilt sumpthing like thet ov a hors, so thet the valves wont wurk both wais, and an emetick wood hev no effeekt. It maiks wun feel sort uv flabergasted tu think uv it.

Tharefour, in the lite ov modern reesurch, eye klame—and eye think eye hev suffishently demonstraighted the fackt—thet hunny iz not digested neckter, but neckter gathured by the beez from the bokays of natur; depozited in thare sells, and biled down by the heet ov thare boddeys, into which iz then put a few drops of formiek assid tu keep it from spileing. *Ergo*, hunny iz assidulayted neekter, and thets why it all tastes like hunny.

Skwashtown, Ioa, Oct. 12, 1889.

SEASON'S RESULTS.

G. M. Doolittle's Report—Bees by the Pound in the Mails.

Written for the American Bee Journal

BY G. M. DOOLITTLE.

The season of 1889 has been a very peculiar one. The spring opened unusually fine, continuing so up to May 20, when the bees in this locality were fully as strong as they usually are on June 15, which gave us bright hopes of the future—so much so that I began queen-rearing largely, thinking that for once I would be in the field with queens nearly as soon as some of our Southern brethren. But, alas for human hopes; for with May 21 came on a cold rain-storm, which, with nearly winter weather, continued until June 12. This upset all of my plans at queen-rearing, for nearly all of my nuclei perished, queen-cells were destroyed, and no queens were fertilized during that time.

After getting things in shape again, I found that, after my sales, I had only 26 queens left to commence the season with, the most of which were pretty well supplied with bees, but no brood except in the egg and larval form, for no brood was reared during this cold spell.

From these colonies I drew quite heavily of bees to start in the queen-business again, so that of course they

did not store quite as much honey as they otherwise would have done. When I saw that no brood was being reared at a period when such brood was to become the bees which should be the laborers in the honey harvest, I became convinced that no large crop of honey could be obtained; for it is the bees that hatch from the eggs laid by the queen 37 days before the honey harvest, that become the honey-gatherers during that harvest.

On June 13 the weather became warm again, and the bees poured out of their hives in search of supplies, and brood-rearing then commenced in earnest. White clover was unusually abundant for this section, but as it continued to rain nearly every day, the bees obtained little more from it than enough to sustain the large amount of brood that they were rearing.

Basswood opened on July 4, still very little honey was secreted in the flowers until about a week later, when the bees seemed to obtain honey from it as fast as I ever knew them to do; that is, they came in so heavily loaded, that for several days they dropped short of the entrance, in the same way that they always do when honey is very abundant. To my surprise, I found that although the honey was seemingly coming in very fast, still work in the sections was going on very slow, for the honey brought in was very thin, owing to the rain which still kept up.

Basswood lasted about three weeks in all, the bees getting honey from it only about two weeks. Teasel gave a little honey for a week after the basswood was gone, when the honey season for 1889 was over.

As usual during the past twelve years, buckwheat gave no more honey than was consumed by the bees while they were at work upon it; and as for other fall flowers, we have none, so to speak.

About Aug. 28 the bees began to come in quite heavily loaded, and I was curious to know what they were getting. A search soon revealed that the leaves of the oak and hickory trees were glossy with a sweet, sticky substance, which is known as "honey-dew." The bees worked on this till about Sept. 8, when a rain stopped operations. Of this they stored about 10 pounds per colony, which, with the honey that they had on hand before, gave them enough for winter. I am somewhat fearful regarding the result of their wintering on such honey, but lack of time prevented my extracting it and feeding.

I now have 48 colonies ready for winter, having sold some this fall. The result in honey from the 26 queens is, 651 pounds of comb honey and 103 pounds of extracted, making a total of 754 pounds of honey in all, or an average of 29 pounds for the colony of each queen. This I believe is the poorest yield that I have had since I commenced the business of bee-keeping, except during the year 1869, when there was no surplus obtained from any source, and the bees had to be fed for winter.

Mailing Bees by the Pound.

Since the editor of the AMERICAN BEE JOURNAL published my letter on page 581, telling of the trial package of the ½-pound of bees which were mailed to me by Mr. E. L. Pratt, I have been somewhat amused at the comments thereon in the bee-papers. Especially was I amused by Messrs. Root and Alley "taking us up" so sharply for thus doing, because it was a "VIOLATION OF THE LAW" to send bees in that manner.

Of course it was but natural for me to think back to the time when Mr. Alley boasted of how he was too sharp for the government when queens were not mailable, in getting them through contrary to law in sealed packages; and how Mr. Root sent queens to Canada, and received them from that country contrary to law; as well as how all parties are now receiving queens from Mr. Benton and others across the water, in as open violation of the law, and more so, than is the mailing of "bees by the pound" in our own country.

If these "GREAT LIGHTS" have led the way, was it more than would be expected that *we* lesser ones should follow?

Now they should not be too severe on us because we followed their example. I do not know that the time has arrived yet to *push* the sending of bees by mail, and I think that perhaps it has not; yet I firmly believe that the time will come when they will be thus sent, for their lies a necessity in that direction. None who have censured the plan have seen wherein that necessity lies.

Mr. Alley says that scarcely any one would want to receive bees in that way, or words of like import, if my memory serves me rightly. Now I wish to say, that, according to my best belief, based on the thousands of letters that I have received, two-thirds of those keeping bees do not live within easy reach of any express office—many living from 10 to 30 miles away—which almost practically excludes them from receiving bees by express, without trouble and worry. I am 8 miles from the nearest express office, and I know what I am talking about.

Because every train that "comes in" is met by Messrs. Alley and Root, it does not follow that no one else has different wants from theirs. It was not the saving of cost that I was thinking about when I desired bees by the pound in the mails, but it was that we who live miles from the express office might be equally independent with our more-favored brethren. I think that when Mr. Alley comes to look at it in this light, he will see that he was wrong in thinking of sending in petitions opposed to those of Mr. Pratt.

Borodino, N. Y.

BEES IN WINTER.

Preparing Bees so that they will Winter.

Written for the American Bee Journal

BY DR. J. M. HICKS.

I have received many letters enquiring as to the best method of wintering bees. While I am willing to impart all the knowledge that I can for the benefit of the readers of the AMERICAN BEE JOURNAL, and especially to those who seem anxious to succeed in wintering their bees, I am fully aware that the same process or plan that I might suggest at present, would not prove as successful in some localities as it might in others; hence I will give a plan which, if followed out, will no doubt prove successful in localities where the necessity seems to call into practice a plan that is easiest managed by the greater number, as well as by those who live in localities that are usually most severe on the bees.

I have arranged several bee-houses in the last few years, for many who are interested in the welfare of many colonies of bees, and knowing also how easy it will be to add the extra lumber, as well as some extra labor, in order to save the bees during the approaching winter.

I suggest that the hives be placed on a close-fitting platform or floor, which may be laid temporarily; on this, place the hives about 6 inches apart, leaving about the same amount of space at the front and rear of all the hives, the platform being wide enough, of course, to admit of a back and front wall of plank. The back wall should fit down on the platform, and the front should have 2-inch blocks laid 6 or 8 feet apart, so as to lay a 6-inch board along in front of the hives on the blocks, and the edge of the board to fit close up to all the hives, which will all be in perfect line.

The front wall will also rest on the 2-inch blocks, and form a 6-inch space in front of the hives, and the 6-inch board will form the bottom of the space, leaving an open entrance to all

the hives, which is formed by means of the 2-inch blocks before referred to. This makes a complete, continuous box around all the hives, which are spaced about 6 inches apart.

Now gather forest leaves, and pack them between and around all the hives. (You need not fear getting too many leaves, as the tighter the leaves are packed between and around all the hives, the better.) The back and front walls should be raised high enough above the tops of the hives, to admit of a heavy layer of leaves on top. It will be provided, of course, that the bees have free egress and ingress, the entrances fronting toward the east.

I feel certain that those who take the trouble to provide their bees with such winter quarters, will have no sad faces on account of loss of bees the coming winter. In case any are not favored with a supply of forest leaves, I recommend as the next best article for packing, oat-straw, which should be free from dampness. If the packing is well done, I feel assured that each colony will winter safely on less than ten pounds of honey, which will pay well for all the trouble. Each colony should have at least from 15 to 20 pounds of honey to last them through the winter. I gave directions last spring as to the kind of food, and how to feed to all colonies that are destitute of food. Bees should have at least a good shed over them, and be placed above the ground, out of the reach of mice.

Indianapolis, Ind.

KANSAS.

It is a Good Field for Bees—Report for 1889.

Written for the American Bee Journal
BY REV. J. D. GEHRING.

Is Kansas a good place for bees? A few years ago a negative answer would have been given, even for this region; but now we can say, "Yes, white clover, in great abundance, is here to stay; also Alsike and sweet clover is plentiful along the railroads and public highways."

In the early spring we have the various vine-fruit bloom, and apple, peach, plum, cherry and pear tree blossoms in the greatest profusion. Along the river courses, we have also the linden.

Golden Rod as a Honey-Plant.

As to the golden-rod, I can only say with confident assurance that I am right, that there is plenty of it in this part of Kansas; but I begin to feel a little doubtful as to its honey-producing excellence. I have watched it closely for the last four years, where I had it in sight from my apiary every day during blooming time, and I cannot say that it yielded a good flow of honey. However, I am not sure that this is not owing to conditions of weather and season.

The main trouble with golden-rod seems to be, that it begins to bloom when, as a rule, the weather is very hot and dry; and, just about the time it is at its best, we have cold rains and frost. This was the case here this season.

During the last two days of August, the bees brought in the honey at a furious rate — mostly from white "smart-weed." Since Sept. 1, they have done nothing. I shall probably have to feed some of mine, for when the honey-flow ceased, they had a great quantity of brood, and but a small supply of stores in the brood-nest.

The early part of the season, after fruit-bloom, was just like the latter part—cold and wet; but the frequent rains, keeping the white clover fresh, gave us the "bulge" on white honey, and we can report a good crop of the very best of honey.

I began the season with 18 colonies—nearly all Italians. I desired no increase, and I succeeded in keeping it within 25, all told. I took from 18 colonies, 1,500 pounds of white clover honey, and 200 pounds of yellow honey—all in one-pound sections. I have sold all of it in the home market at from 15 to 20 cents per pound, and could sell another ton of it if I had it.

Two of my Italian colonies gave 140 pounds each, of the finest honey I had.

Getting Swarms with Shot-Gun.

My queens have their wings clipped. I would not try to keep bees, where large shade-trees are as numerous as they are in Lawrence, with queens able to go where they please. I had one queen which I failed to catch, after repeated efforts; she was a "harum-scarum, a tom-boy." I always found her when I looked for her, but when I put my fingers on her to secure her, like the Dutch woman's flea, she wasn't there! But she concluded that she would go to seek a home where she could reign unmolested, and so, one day, she came out with her whole family, drones and all; I do not think that there was a pint of bees in the hive when I examined it—and they were young ones.

I think that the queeen wanted to go off at once, but she finally consented to cluster in the highest top of the highest limb of the highest maple tree in my yard. I could not climb to where they were. I stood and looked at them for some time; of course I was "riled a little." A squirrel or a "possum" I could shoot, but a swarm of bees could not be—"Hold on," I thought; "something must be done. That pesky queen shall not have it all her own way. I'll try my shot-gun on her."

With gun in had, I ascended a ladder to the top of the house; got a good foot-hold, aimed, and fired right into the body of the cluster. The limb dropped, and many of the bees with it; but they soon returned, and took position on another near the place. I shot them down again, and again they came back, but this time lower down, so that I could climb up near them, and saw the limb off. Many bees were killed, but the queen escaped unhurt. I put them back, and clipped the queen's wings. The second day after, they came out again, but returned, and this was repeated several times. They refused to work, and were as cross as hornets. Finally I "kotched" that little "beast," and slaughtered her, and gave the colony a queen-cell.

Another colony persisted in swarming-out with a queen whose wings were clipped, and finally left—I think without a queen; they did not hatch one out, I know. One colony built 26 queen-cells on one frame, and 8 on another.

On the whole, I am well satisfied with my season's work; but I am exceedingly sorry that I cannot continue in the business. On account of my disability, caused by a gun-shot wound of the neck, I am unable to do the necessary work called for in an apiary of from 50 to 100 colonies—and less than that would not pay. My left side is partially paralyzed, and the left hand is too weak to lift heavy frames.

Lawrence, Kansas.

Sublime Thoughts.

There is a way out of every difficulty that meets us in life. It may not be the way we like, or the way that promises great glory, honor, pleasure or reward, but it is the way of deliverance, and we are bound to consider it God's way.—Joseph Owen.

There is a peculiar and appropriate reward for every act, only remember that the reward is not given for the merit of the act, but follows on it inevitably in the spiritual kingdom, as wheat springs from the grain and barley from its grain in the natural world.—F. W. Robertson.

Whenever we yield ourselves to the true law, a higher principle of order enters into our life; we rise out of childish weakness, out of animalism and evil; we are renewed and transformed into children of light; we become conscious of a steady, upward tendency, and of a godlike and immortal quality.—C. G. Ames in Mail and Express.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Dec. 4-6.—International, at Brantford, Ont., Canada. R. F. Holtermann, Sec., Romney, Ont.

Dec. 16, 17.—Northern Illinois, at Rockford, Ills. D. A. Fuller, Sec., Cherry Valley, Ills.

1890.

May 2.—Susquehanna Co., at Hopbottom, Pa. H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER-BOX

No Honey from Golden-Rod.

As it is desired to know the opinion of bee-keepers on golden-rod, I have watched to see the golden honey coming in, but it was all disappointment. I have never seen a bee at work on it in this latitude. I think that it is a poor honey-plant. From heart's-ease and smart-weed is where we get our fall honey. I put 28 colonies into winter quarters in 1888, and wintered them without loss till March 15, 1889, and then I lost 10 colonies by fire, which left me 18, and 5 of them got some foul broody honey at one of my neighbor's, and that disabled them for the season; the balance did well on clover and linden, and increased to 28 colonies again. There is no fall honey here. I have fed back about 300 pounds of honey for winter stores. I winter my bees out-doors, packed with leaves, and have lost none in five years from wintering; neither do they spring dwindle, but come out healthy and strong. JERRY SCOTT.

Clarinda, Iowa, Nov. 5, 1889.

Good Yield of Honey.

On page 556, Mr. H. E. Hill reports that in this (Chautauqua) county the honey crop was a complete failure; but were he here now, he could see that his report was incorrect. My bees never did better. I had one colony that began in May, that contained about a quart of bees, and from them I have sold 100 pounds of comb honey, and they yet have plenty of honey to winter on. My bees have more honey than they can use this winter. I put them into the cellar on Oct. 30. It is very wet here now, but we have had no snow yet, though we have had heavy frosts. I expect to start on a trip to the Western States on Nov. 1. C. D. BARBER.

Stockton, N. Y., Oct. 31, 1889.

Paris Green—Golden-Rod.

About the first of last June I noticed in the morning a lot of bees on the grass in the front of some of my hives; they would crawl together in bunches of 4 to 8, and before night they would all be dead. I attributed it to getting poison from Paris green on the potatoes, as it commenced about the time the poison was used here, and ceased when the use of the poison ended, lasting about ten days. It was so last year, and I lost quite a lot of bees. Two other bee-men had the same experience. It affected the Italians, and scarcely any of the blacks. Has any one else had such an experience?

I bought 8 Carniolan queens the last of the season, and as to handling them, I like them very much.

There is but a little golden-rod near here, but I have watched for ten years, and scarcely ever saw a bee on it until this year, when they worked on it very well in the afternoon; but in New York, across the Lake, in the Adirondack Mountains, I have seen them work on it as well as I ever saw them work on clover. I took 40 swarms over there, and found lots of the honey in the hives, of dark color, but fair quality—not such wonderfully nice honey as one writer in the BEE JOURNAL says. As a national flower, I shall not vote for the golden-rod nor the daisy, as they are a pest here, and are so looked upon. I should prefer the sweet-pea, or, what is best for bee-keepers, the clover blossom.

E. J. SMITH.

Addison, Vt., Nov. 4, 1889.

Best Honey-Flow Ever Known.

This season's honey-flow was the largest and finest that I ever saw in this locality. Bees are apparently in good condition for winter. Scarcity of bees prevented a glutted markets, and bee-keepers are happy to sell at "let live" prices—8 to 9 cents for extracted, and 12½ to 15 cents for comb honey. J. W. CLARK.

Clarksburg, Mo., Nov. 4, 1889.

Golden-Rod and Buckwheat.

Golden-rod is a good honey-plant in this locality, and usually furnishes the bees nearly enough honey for wintering. Buckwheat used to furnish considerable honey, but for the past four seasons it has not given much, and this season scarcely any.

A. W. SMITH.

Parksville, N. Y., Nov. 10, 1889.

Pronouncing "Carniolan."

How is C-a-r-n-i-o-l-a-n pronounced? In conversation with a German, who has spent considerable of his time in Austria, I learned to pronounce it Car-*ni'*-o-lan; but Mr. Alley, on hearing me pronounce it so, smiled all over at my poor German. He says that it should be pronounced *Car'*-ni-*o*-lan, with a big O. If there are any Austrian Germans who read the AMERICAN BEE JOURNAL, I would like to have them give the correct pronunciation of the word, so that we may call things by their right names. E. L. PRATT.

Marlboro, Mass.

[We fully agree with Bro. Alley. The accent is on the first syllable, and on the O. If we are not right in this opinion, will some of our Austrian readers please correct us?—ED.]

Digested Nectar—Golden-Rod.

I have been somewhat interested in the reports as to the value of golden-rod as a honey-plant. I used to think as does Mr. Secor, when I lived in Iowa, that as a honey-plant it was of little value; but I find that here in Missouri, it is a valuable honey-producer, usually producing a good surplus of very fine golden-colored honey, that cannot be distinguished from Spanish needle honey, except by the flavor. The same is true of Spanish-needle in Iowa—I never got any honey from it there, but here it yields profusely.

In regard to the digested nectar controversy, although I am no scientist, I cannot accept Prof. Cook's theory; it may be correct, but it does not look reasonable to me. One reason is, that, according to my idea, it takes time to digest any article in the stomach, and where a colony of bees will gather 10, 20, 25, or even 30 pounds of honey in one day (as we have had reports), it does not look reasonable that they could accomplish such an amount of work, or digestion, or whatever you may call it.

Our honey crop here is small, the white honey harvest being light, and the late honey almost a failure; and, to make matters worse, for me, on July 4, I lost my house by fire, and nearly all that we had in it, with some of my bee-supplies.

L. G. PURVIS.

Forest City, Mo., Nov. 4, 1889.

Cause of Foul Brood.

I learned the bee-business in Germany, but I did not understand the different methods of handling bees that we have in this country. I do not find the cause of foul brood in the bee-book that I am reading. Is it not the queen's fault? Will some one please answer? I do believe that if a queen is too old, she causes foul brood. Some keep queens for 3 or 4 years, when they are good ones, but this is altogether too long. I, for one, never had any trouble with the disease among my bees here in America, but I lost all that I had in Germany, in 1871. I have a good recipe that is used in Europe, and if any bee-keepers desire to know it, I shall be glad to publish it.

The honey season has been very poor in this locality, and the increase was small. I have three out-apiaries, but hardly any surplus honey. I shall now try to winter part of my bees on the roof, as I live in the city, and have but little room, and cellar-wintering cannot be practiced, as my cellars are too damp. JOHN H. BLANKEN.

Jersey City, N. J., Oct. 26, 1889.

Some Questions.

1. After the bees have hatched, will there not be a little case left in the cells? Should it be left in? or can it be removed?

2. I have packed my bees with sawdust in a bee-house. Shall I keep the door open, or not? ALBERT MALLERY.

Portville, N. Y.

[1. Yes, a slight cocoon will be left in the cells after the bees are hatched—but it is such a trifle that it takes hundreds of them to make much difference in the size of cells. The only remedy is to melt up the combs and either give the bees comb foundation, or else let them build new comb.

2. The principal point is to keep the cellar at an even temperature—about 45 degrees. If it is necessary to open the door a short time to do this, then open it. If not, let it remain closed.—ED.]

Season's Results—Shade-Boards.

I put 35 colonies into the cellar about Nov. 15, 1888, which was my first experience in cellar-wintering. They wintered very nicely—all except the 5 colonies that starved, and one that came out queenless. The starving was caused by my taking too much stock in reports of bees wintering on so much less stores in the cellar than when packed out-doors. My increase has been small, partly owing to the loss of queens, and uniting queenless colonies with others; so I now have 33 colonies ready for winter quarters. I have not lost so many queens in the five years previous. Bees built up quite rapidly on fruit bloom, and gathered some surplus from raspberry and basswood, but white clover was almost a failure. Up to the close of basswood, I had taken about 650 pounds of extracted honey, with the brood-chambers almost entirely empty.

Then came sweet clover, golden-rod, etc., from which they gathered enough for winter stores—not a starvation amount either—and 850 pounds of very thick, bright yellow extracted honey, which does very well for Michigan this year. Comb honey in this market retails at 15 cents, while I get 12½ cents for my extracted honey in fruit-cans, or $1.00 for a 10 pound pail. So long as I can sell my entire crop at home, at these prices, I do not think that I shall bother with comb honey. My bees have paid me at the rate of $100 per month, for the actual time spent in caring for them this year.

I derive so much benefit from simple suggestions by my brother bee-keepers, that I want to mention a very convenient and cheap shade for hives, made out of old barrel-staves nailed on strips one inch thick by 2 inches wide, and the length you want the width of the shade. Nail the staves on in single cover with a space between, and then another cover over the openings. They are light, and convenient to put as a temporary cover over many things, when not in use on the hives. An old bee-keeper, to whom I showed them, exclaimed, "Just the thing!" J. M. CLARK.

Hillsdale, Mich., Nov. 1, 1889.

Bees in Good Condition.

My crop of honey is almost all sold, at remunerative prices—8½ cents for extracted, and 12½ cents for comb honey. I think that bees are in good condition to winter. I shall put about 150 colonies into the cellar, which is the proper place to winter bees in Minnesota. H. H. ROSEBROCK.

Owatonna, Minn., Nov. 2, 1889.

Report for the Season.

In 1888 I put 29 colonies into winter quarters, and 28 came through the winter. I sold 2 colonies in June for $5.00 each, increased the balance to 55 colonies, by natural swarming, and took 3,000 pounds of honey in one-pound sections—about 2,000 pounds of white honey, and 1,000 pounds of buckwheat. I have over 2,000 pounds on hand yet, over half of which is white honey. A. F. WHEELER.

Rossville, Iowa, Nov. 1, 1889.

How to Rear Queens, etc.

I commenced with 14 colonies of bees in the spring, and increased them to 20, and extracted 3,000 pounds of honey. I call that good for a beginner. I would like to know how to rear queens from an imported mother. PETER EHL.

Sherrill's Mount, Iowa, Oct. 31, 1889.

[Read Doolittle's Queen-Rearing book, and you will learn all about it.—ED.]

Golden-Rod Honey—Bee-Cellar.

Our good old Granite State is not, strictly speaking, a honey-producer; but in the Connecticut and Androscoggin valleys, there is some fine bee-pasturage. The weather here the first of the season was all that one could desire: the bees were breeding rapidly, and gathering honey fast. About July 5, it began to rain, and it rained all through July and August; by Sept. 1 my 80 colonies of bees were almost destitute of honey. About this time the golden-rod began to bloom, sun began to shine, and the bees went to work, and they did work for about four weeks, early and late; so that by Oct. 1, the 80 hives were pretty well filled with a fair quantity of fine comb honey in sections to spare. Golden-rod did it, for we have no other source of fall honey. The honey was a transparent amber, quite thick, and the flavor was very good; crushed in the comb, and put up in glass jars, it attracted a good deal of attention at the county fair this fall.

I have just completed a honey-house 20x30 feet, 12-foot posted, with a cemented bee-cellar beneath, which will winter about 200 colonies of bees. The cost of the building was about $300. Honey (comb or extracted) sells readily for 20 cents per pound here. A. D. ELLINGWOOD.

Milan, N. H., Nov. 4, 1889.

International Bee-Association.

Mr. R. Holtermann, the efficient Secretary, has sent us the following concerning the coming convention:

The programme for the American International Bee-Association, which is to meet at Brantford, Ontario, Canada, Dec. 4 to 6, next, is not yet complete. However from the following it will be seen that every effort has been made to have a good one. The first session will be at 2 p.m. of the 4th.

Bee-Keeping an Occupation for Women—Miss H. F. Buller, Campbellford, Ont.

Cellar *vs.* Out-Door Wintering—R. McKnight, Owen Sound, Ont.

Shipping Queens—F. H. Macpherson, Beeton, Ont.

Disposal of the Honey Crop—Thomas G. Newman, Chicago, Ills.

Cellar Wintering—S. T. Pettit, Belmont, Ont.

Riding Hobby-Horses—Bee-keeping a recreation from other pursuits, and an antidote for disease—E. R. Root, Medina, O.

Alimentary System or Apparatus of the Honey-Bee—Prof. A. J. Cook, Agricultural College, Mich.

S. Corneil, Lindsay, Ont.—Subject not given.

The President will give his annual address which, doubtless, will be amusing and instructive.

Reduced rates, at least one and one-third fare for return trip, may be secured on the Grand Trunk and Canadian Pacific railway; the latter tickets must be purchased to and from Galt or Woodstock. For further particulars, apply to the Secretary.

Remember you must have a certificate when purchasing your ticket for Brantford on the Grand Trunk railway, or Galt or Woodstock on the Canadian Pacific railway.

Reduced hotel rates ($1.50) may be secured at the Kirby House. The Commercial Hotel also, close to the place of meeting, is a good one-dollar house.

The "International" Convention has a strong claim upon every apiarist, and the attendauce will be very large, no doubt. The Secretary is doing all he can to make ample arrangements for the meeting, and we hope that it will prove to be one of the most profitable Conventions ever held.

The Farm Journal. Philadelphia, Pa., has the largest circulation of any agricultural periodical in the world—150,000. It is now in its 13th volume, and is a good, practical Monthly. We can offer the *Farm Journal* and either the AMERICAN BEE JOURNAL or the ILLUSTRATED HOME JOURNAL from now until Dec. 31, 1890, for $1.20.

Or, we will *give it free* for one year to any one who will send us *one new* subscriber for either of our Journals with $1.00 (the subscription price).

This grand offer should bring us thousands of responses at once.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the AMERICAN BEE JOURNAL for one year—we send both for $1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for $1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, $1.00 per 100, or $8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

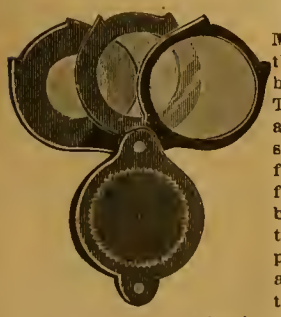
A Home Market for honey can be made by judiciously distributiug the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	1 00...	
and Gleanings in Bee-Culture	2 00....	1 75
Bee-Keepers' Guide	1 50....	1 40
Bee-Keepers' Review	1 50....	1 40
The Apiculturist	1 75....	1 65
Bee-Keepers' Advance	1 50....	1 40
Canadian Bee Journal	2 00....	1 80
Canadian Honey Producer	1 40....	1 30
The 8 above-named papers..	5 65....	5 00
and Langstroth Revised (Dadant).	3 00....	2 75
Cook's Manual (old edition)	2 25....	2 00
Doolittle on Queen-Rearing	2 00....	1 75
Bees and Honey (Newman)	2 00....	1 75
Binder for Am. Bee Journal	1 60....	1 50
Dzierzon's Bee-Book (cloth)	3 00....	2 00
Root's A B C of Bee-Culture	2 25....	2 10
Farmer's Account Book	4 00....	2 20
Western World Guide	1 50....	1 30
Heddon's book, "Success,"	1 50..	1 40
A Year Among the Bees	1 75....	1 50
Convention Hand-Book	1 50....	1 30
Weekly Inter-Ocean	2 00....	1 75
Toronto Globe (weekly)	2 00....	1 70
History of National Society	1 50....	1 25
American Poultry Journal	2 25....	1 50

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.



Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

A Handsome Present.—As the convention season is now on hand, we will make every subscriber this good offer: Go and call on your neighbor who keeps bees and ought to take the BEE JOURNAL. Get his subscription and one dollar for a year; send it to us, and we will *present* you a copy of the Convention Hand-Book, by mail, postpaid, for your trouble. Here is a grand chance for all to get a valuable book without costing them a cent!

Every Hand-Book contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with subjects for discussion. They sell at 50 cents each, and are nicely bound in cloth covers.

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.

Honey and Beeswax Market.

CHICAGO.

HONEY.—Receipts of comb are averaging about as they usually do with a fair crop. Prices rule at 13@14c. for choice to fancy 1-lbs., which comprise the bulk of the receipts, very little in sections averaging 1½ @2 lbs., and sells at 10@12c½.; dark, 8@10c. Extracted, 6@8c.

BEESWAX.—25c.
Nov. 8. R. A. BURNETT. 161 South Water St.

KANSAS CITY.

HONEY.—White clover and linden 1-lbs., fancy, 14@15c.; good, 13@14c.; dark, 12c; the same in 2-lbs., 13@14c.; dark, 12c. Extracted, white, 8c.; dark, 7c. Demand is good. Sales large for this time of year.
Sep. 27. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—We quote: In one-lb. sections, 16@18c.; off colors, 14@16c. Extracted, 7@8c.

BEESWAX.—20@25c.
Sep. 20. J. M. CLARK COM. CO., 1421 15th St.

NEW YORK.

HONEY.—Extracted, white clover, basswood, orange blossom and California, 8c.; buckwheat, 6 cts.; common Southern, 65@70c. per gallon. Demand is good. Comb honey, fancy white 1-lbs., 16c.; 2-lbs., 14c. Fair 1-lbs., 14c; 2-lbs., 11@12c. Buckwheat, 1-lbs., 11@12c.; 2-lbs., 10@11c. Demand very good for fancy white 1-lbs., and buckwheat 1-lbs.

BEESWAX.—22c.
Oct. 2. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—Demand for white clover 1-lbs. is improving, but price depends upon size and style of package, condition and appearance when received, ranging from 12@13½c.; basswood, 11@11½c.; buckwheat, 8@10c. Extracted, 6½@7½c., depending upon style and size of package.

BEESWAX.—27@28c.
Nov. 9. S. T. FISH & CO., 189 S. Water St.

NEW YORK.

HONEY.—Demand fair. Western honey arriving freely, and prices declining. We quote: Fancy white 1-lbs., 14@15c.; 2-lbs, 12@13c.; off grades and mixed 10@12c.; buckwheat 1-lbs., 10@11c.; 2-lbs., 9c. Extracted white clover and basswood, 7½c.; orange bloom, 8½c.; California, 7½c.; buckwheat, 6 cents; Southern 70@75c. per gallon.

HILDRETH BROS. & SEGELKEN,
Nov. 8. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote: Fancy 1-lbs., 16@17c.; fair, 14@15c.; 2-lbs., 15@16c. Extracted, 8@9c. Market is in fairly good condition, but we are getting some of the odd grades from Western New York, Michigan and Wisconsin, and it is not arriving in very good condition, making it hard to sell.

BEESWAX.—None on hand.
Oct. 21. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—A quiet but steady demand for choice comb, at 14@16c. Fair demand for extracted at 5@8c

BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Nov. 9. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—Receipts are very light, and demand is increasing. We quote: White 1-lbs. 13@14c.; dark, 10@12c.; white 2-lbs. 12@13c.; dark. 10@12c. Extracted, white, 7@8c.; dark, 6c.

BEESWAX.—None in market.
Oct. 12. CLEMONS, CLOON & CO., cor 4th & Walnut.

Convention Notices.

☞ At the request of several bee-keepers, I hereby make a call for a meeting at Higginsville, Mo., on Thursday, Nov. 14, 1889, at 9 a.m., for only one day, for the purpose of organizing a bee-keepers' association. Let all bee-keepers attend, that can do so.
J. W. ROUSE, Santa Fe, Mo.

☞ The Northern Illinois Bee-Keepers' Association will hold its annual meeting in the Supervisors' Room of the Court House, at Rockford, Ills., on Dec. 16 and 17, 1889. D. A. FULLER, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Romney, Ont., Canada.

We will Present a Pocket Dictionary for two subscribers with $2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

A New Premium.

The National Purchasing Co. of this city issue a Membership Ticket good for the year 1890, for the sum of one dollar. This Ticket is not transferable, and entitles the holder to all discounts that the Agency can secure on goods that may be ordered, and they are in a position to obtain more or less discount on every order received.

By a special arrangement with the Manager, Mr. C. L. Seavey, we are enabled to make this remarkable offer: We will forward a Membership Ticket for 1890 to any one sending us two new subscribers for the AMERICAN BEE JOURNAL or ILLUSTRATED HOME JOURNAL for one year with $2.00. This offer is good only until Dec. 31, 1889.

☞ The Harrisburg *Telegram* is preparing a complete history of the Johnstown disaster, which will be published shortly in an elegant volume. It is proposed to make the book a valuable souvenir of the great calamity, excellent alike in matter and illustration. The text will be from the pen of the editor, who is thoroughly acquainted with the subject and with the district, while the most eminent artists will furnish portraits and views engraved from original drawings and photographs. We advise those who desire a superb volume, worthy of a place in any library, to wait for the forthcoming work. Experienced canvassers are desired as local agents to solicit subscriptions, and should write at once for territory.

☞ The *Forum*, for November, 1889, contains the following very interesting articles: American Rights in Behring Sea, by President J. B. Angell; Public Opinion and the Civil Service, by E. L. Godkin; Modern Claims upon the Pulpit, by Archdeacon F. W. Farrar; The Owners of the United States, by Thomas G. Shearman; Industrial Co-operation in England, by Prof. F. G. Peabody; Municipal Control of Gas Works, by Bronson C. Keeler; The Cost of Universities, by President David J. Hill; Wendell Phillips as an Orator, by Carlos Martyn; Requirements for National Defense, by Adj-Gen. J. C. Kelton; The Domain of Romance, by Maurice Thompson; Types of American Women, by Prof. Hjalmar H. Boyesen. For sale by all booksellers.

☞ A remarkable paper on "Financial Panics, their Cause and Cure," is the leading editorial contribution in *Frank Leslie's Illustrated Newspaper* last week. It is from the pen of Gen. Spinner, the veteran former Treasurer of the United States.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the Apiary Register and begin to use it. The prices are as follows:

For 50 colonies (120 pages)..... $1 00
" 100 colonies (220 pages)..... 1 25
" 200 colonies (420 pages)..... 1 50

HONEY

WE are now ready to receive shipments of **HONEY**, and would be pleased to open correspondence. Liberal advances made on consignments. Let us hear from you, as we can render prompt returns at the top market values. Reference on file with the American Bee Journal. **S. T. FISH & CO.,**
39A10t 189 So. Water St., CHICAGO, ILL.
Mention the American Bee Journal.

GLASS PAILS

FOR HONEY.

THESE Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

Prices are as follows:

To hold 1 pound of honey, per dozen,			$1.60
" 2 pounds	"	"	2.00
" 3 "	"	"	2.50

THOS. G. NEWMAN & SON,
923 & 925 West Madison Street, - CHICAGO, ILLS.
Mention the American Bee Journal.

DISCOUNT NOTICE.

DURING the months of October, November and December I offer a **DISCOUNT of 10 to 6 per cent.** for GOODS purchased for next season's use.

☞ **Price-List Free.**

Address, **J. M. KINZIE,**
20A1y ROCHESTER, Oakland Co., MICH.
Mention the American Bee Journal.

SECTION PRESS.

WE are now prepared to furnish Wakeman & Crocker's **PRESS for putting together One-Piece Sections**—at wholesale and retail. Price, **$2.00,** by express. By the dozen—rate given upon application.

THOS. G. NEWMAN & SON,
923 & 925 W. Madison-St., - CHICAGO, ILLS.

British Bee Journal

AND BEE-KEEPERS' ADVISER,

IS published every week, at **6s. 6d.** per annum. It contains the very best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley Herts, England

Mention the American Bee Journal.

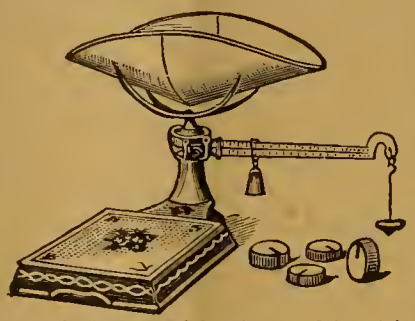
CLUBBING----READ THIS!

I **WILL** Club Thomas G. Newman & Son's ILLUSTRATED HOME JOURNAL with the American Agriculturist for $1.60; with the Youth's Companion (new subscriber), for $1.95; with the Farm Journal, for 95 cents; with the Ladies' Home Journal, for $1.65; with Harpers' Magazine, for $3.85; with the New York Tribune (weekly), for $1.65; with the New York World (weekly), for $1.60; and 1,000 others at equally good rates. Remember this includes the "Illustrated Home Journal" for one Full Year besides the Paper named.

Address, **C. M. GOODSPEED,**
46E5t THORNHILL, Onondaga Co., N. Y.
Mention the American Bee Journal.

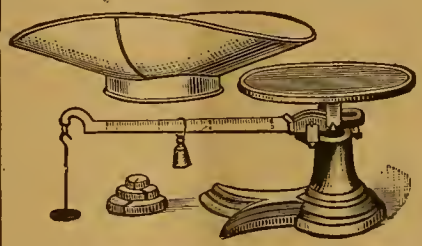
Useful Scales

The Union or Family Scale.



This Scale has steel bearings, and it weighs from ½-ounce to 240 pounds. Price, with a Single Brass Beam, as shown in the illustration, $3.00. With Double Beam for taking the tare, $3.50.

The Little Detective Scale.



This little Scale is made with steel bearings, and a brass Beam, and will weigh accurately ¼-ounce to 25 pounds. It supplies the great demand for a Housekeeper's Scale. Prices:

Single beam, no scoop		$2.00.
" " tin "		2.50.
Double " no scoop		3.00.
" " tin "		3.50.

☞ All orders filled promptly.

THOS. G. NEWMAN & SON,
923 & 925 West Madison St., CHICAGO, ILLS.
Mention the American Bee Journal.

THE BEE-KEEPERS' REVIEW

A **50-CENT MONTHLY** that gives the cream of Apicultural Literature; points out errors and fallacious ideas; and it gives, each month, the views of leading bee-keepers upon some special topic. **Three Samples Free.**

W. Z. HUTCHINSON,
26Etf 613 Wood St., FLINT, MICHIGAN.
Mention the American Bee Journal.

HOME

EMPLOYMENT. AGENTS wanted everywhere, for the HOME JOURNAL—a grand family paper. *Big Cash Premiums.* Sample FREE. THOS. G. NEWMAN & SON,
923 & 925 West Madison-Street, - CHICAGO, ILLS.
Mention the American Bee Journal.

BEE-KEEPERS,

TAKE NOTICE!

WE will allow a **heavy discount** on the Orders received this **Fall** and **Winter.** Estimates furnished, and correspondence solicited. New **Price-List** ready Dec. 1st,

A. F. STAUFFER & CO.,
40Etf STERLING, Whiteside Co., ILL.
Mention the American Bee Journal.

GROUND CORK

FOR

Packing Bees for Winter.

THIS consists of small pieces about the size of a pea, and is an excellent thing for packing Bees in winter. Prices: In original packages of 100 pounds, $4.00, measuring 14 bushels.; smaller quantities, 10 cents per lb.; or a seamless sack, containing 15 lbs., $1.00.

THOMAS G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILLS.

Muth's Honey Extractor,

Perfection Cold-Blast Smokers,

SQUARE GLASS HONEY-JARS, etc.

For Circulars, apply to

CHARLES F. MUTH & SON,
Cor. Freeman & Central Aves., CINCINNATI, O.

P. S.—Send 10c. for Practical Hints to Bee-Keepers
Mention the American Bee Journal.

Honey Almanac for 1890.

JUST the thing needed to create a demand for HONEY at home. Bee-keepers should scatter it freely. It shows the uses of Honey for Medicine, Eating, Drinking, Cooking, for making Cosmetics, Vinegar, etc.; also uses of BEESWAX. Price, 5 cts.; 100 for $2.50; 500 for $10.00; 1,000 for $15.00. The Bee-Keeper's CARD will be printed on the first page without extra cost, when 100 or more are ordered at one time. Address,

THOS. G. NEWMAN & SON,
923 & 925 W. Madison St., - CHICAGO, ILL.

BEE KEEPERS

Should send for my circular. It describes the best Hives, the best Cases, the best Feeders and the best Methods. Address,

J. M. SHUCK,
DES MOINES, IOWA.
1Aly
Mention the American Bee Journal.

SECTIONS! SECTIONS! SECTIONS!

WE are now offering our No. I V-Groove Sections in lots of 500, at $3 per 1,000; No. 2 Sections at $2 per 1,000. For prices on Foundation, Hives, Shipping-Crates, &c., &c., send for Price-List. Address,

J. STAUFFER & SONS,
(Successors to B. J. Miller & Co.,)
31Atf NAPPANEE, IND.

Voice of Masonry and Family Magazine.

Three years a Paper and twenty-five a Magazine. Now unexcelled. Contains fine Portraits and Illustrations, and a great variety of articles, stories and poems for Freemasons and their families; also Eastern Star, Masonic Gleanings and Editorial Departments. Price per year, $3.00.

JOHN W. BROWN, Editor and Publisher,
182 & 184 S. Clark Street, Chicago, Illinois.

WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

EXTRACTED HONEY

FOR SALE.

WE have a Large Quantity of CHOICE WHITE **EXTRACTED HONEY** For Sale, in kegs holding about **200 pounds** each, which we will deliver on board the cars at **8 Cents** per pound. Orders are solicited.

THOS. G. NEWMAN & SON,
923 & 925 West Madison-Street. - CHICAGO, ILLS.

THE AMERICAN BEE JOURNAL
CIRCULATES ALL OVER THE WORLD
PUBLISHED BY THOS. G. NEWMAN & SON, CHICAGO, ILL.

THOMAS G. NEWMAN, EDITOR.

Vol. XXV. Nov. 23, 1889. No. 47.

EDITORIAL BUZZINGS.

☞ We are sorry to learn that on account of failing eye-sight, Mr. Willis M. Barnum, of Angelica, N. Y., has to give up all literary work. He is to undergo an operation as soon as possible, which we hope will result favorably.

☞ The bee-keepers of Tuscola county, Mich., expect to organize an association soon. Any one interested may obtain particulars by addressing H. E. Gordon, Unionville, Mich.

☞ Please notice our latest Premiums for getting new Subscribers, on page 751 of this issue. It will pay every reader to endeavor to procure new subscribers for us. We ought to get thousands of new readers during the next two months.

☞ Mrs. Mahala B. Chaddock died on Nov. 12, 1889, at her home in Vermont, Fulton county, Ills., after an illness of six weeks. Pneumonia was the cause. In her latest poem, published on page 696, the last two stanzas were quite prophetic—"She Sleeps 'Neath the Whispering Leaves."

☞ The *Bee-Keepers' Review* for November gives the following "notice" of the Honey Almanac:

Of the many interesting and valuable books and pamphlets gotten out by that indefatigable worker, Thomas G. Newman, the latest is a "Honey Almanac." Recognizing that honey is a luxury, the sale of which must be *pushed*, Bro. Newman has given bee-keepers this lever with which to do the "pushing." Each alternate page is an illustrated calendar, while the remaining pages are filled with interesting facts, figures and suggestions concerning the uses of honey for food, beverages, cooking, medicines, vinegar, cosmetics, etc.

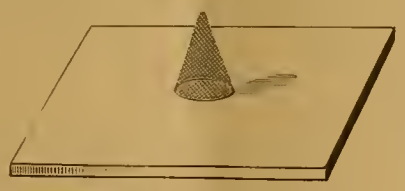
Reese's Bee-Escape.

Mr. Z. T. Hawk, of Audubon, Iowa, writes as follows concerning this useful implement which is described and illustrated on page 727 of our last issue. He says:

On page 697 Frank Coverdale describes a wire-cone escape for cleaning the bees out of the section-cases. The device may be original with Mr. Coverdale, but it is the bee-escape invented by Mr. J. S. Reese, of Winchester, Ky., and illustrated and described in *Gleanings* more than a year ago. There is also an illustration of the improved device in the Nov. 1 issue of that paper. It is an exceedingly useful implement in the apiary, as I have demonstrated by actual use, and I should be very sorry to see any attempt to detract from the credit that is justly Mr. Reese's due.

Here is the description of the simplified bee-escape above referred to:

I am now using with great success and pleasure my bee-escape made wholly of a flat board and a single cone. The board is just the size to cover the T super or surplus case, and may have bee-space or half bee-space above or below, or both, as needed, and the 2-inch hole is put through the board at such a point that the cone will fit down into the lower or unfinished case of sections. When you have taken one section out temporarily, and this point will be determined by the width of section used, this cone may be about 3½ inches long, and is easily made from a piece of wire-cloth 6 inches square, by turning a piece of hard wood to about the shape desired, as a form, and shape the cone over it. The cone may be attached to a piece of thin board with a hole in it instead of the board direct, so the cone may be easily taken off, and all snugly stored away for the next season.



Reese's Simplified Bee-Escape.

Now, to take off the last case of sections at the close of the season, just place an empty super over the brood-chamber; lay the escape board on, with cone down, of course, and set the case of honey on top. The few lurking bees that will remain in the top case will all be old ones, and will not show fight when you remove the cover, but will be glad to fly back home.

In this empty case over the brood-chamber, when no honey is coming in between the spring or early summer flow and the fall flow, you will find the bees will cluster very quietly, and be out of mischief. This last plan will not get the bees out quite so clean as the first plan I wrote you about sometime ago, but it has the advantage of forcing the bees into the empty case of sections at once, and giving them no empty space to cluster and build comb in the case that would contain the cone. I have been rather persistent in presenting to you and the public this discovery; but I know very well its merits, and it is cheap (no patent and no booming). Try them.

J. S. REESE.

Winchester, Ky., July 16, 1889.

☞ Mons. H. Hamet, for 33 years editor of *L'Apiculteur*, at Paris, France, died on Oct. 6, 1889, aged 74 years.

The International Convention.

The following from the President of the International American Bee-Association, is in reference to the coming convention:

I have several times been requested to suggest to those expecting to attend the convention at Brantford, Ont., the desirability of taking with them a sample of both extracted and comb honey (a pound or more), having marked on it the name and location of the producer, the kind of honey, and the wholesale and retail price of the same in their locality. Those not in attendance can send samples, if they wish, in care of the Secretary, Mr. R. F. Holtermann, at Brantford, Ont., charges prepaid; and if thought best, judges could be appointed by the convention to examine and report on the samples, and it would give all an opportunity to see, taste and compare honey from different localities. Any one having anything new, novel and useful in bee-culture, would do all a favor by also having such on exhibition.

A. B. MASON.

We have received the following in regard to reduced railroad fares, etc., from Secretary Holtermann, of Brantford, Ont.:

Applications for reduced railroad certificates are already pouring in. Bee-keepers of the United States must come to our side of the boundary line to get reduced rates. On the Michigan Central railroad no reduced rates can be secured, but they can be had on the Grand Trunk and Canadian Pacific railroads. Railroad certificates can be procured from me; if the applicant travels on the Canadian Pacific road, tickets must be purchased for Woodstock or Galt, and from there get a ticket on the Grand Trunk railroad for Brantford. In this case, you must send for two certificates from me.

The Commercial Hotel at Brantford will board members of the bee-convention for 75 cents per day; at the Kirby House for $1.50. Both hotels are near the place of meeting, the former being a $1.00 house, and the latter $2.00 per day. There is a sample room for the display of hives and other bee-supplies in the Kirby House.

R. F. HOLTERMANN.

Our "Home Journal."

Here is a letter unsolicited and unexpected, which is all the more valuable and welcome, and speaks for itself:

FRIENDS NEWMAN:—I wish to say that we appreciate your ILLUSTRATED HOME JOURNAL *very highly* at our house. Out of some 25 or 30 different papers taken by us, none excel it for *highly intellectual and moral worth*, if any equal it. In these days, when nearly all of the papers of our land are vieing with each other to get hold of something sensational, of the accident, or "blood and thunder" nature, it is a relief to pick up so *clean* a paper as yours, once a month.

Thanks, friend Doolittle. Our aim is to get something for the family which will afford instruction and amusement, and at the same time be unobjectionable, and pure in tone and spirit.

☞ We will send both the BEE JOURNAL and HOME JOURNAL from now until the end of 1890 for $1.75. The Christmas number of the HOME JOURNAL contains Christmas stories, poems and illustrations. Send early and get that number.

Honey Almanac.

This Honey Almanac places in the hands of bee-keepers a powerful lever to revolutionize public sentiment, and create a market for honey, by making a demand for it in every locality in America.

Each alternate page is an illustrated calendar for the month—making a complete Almanac for the year 1890.

Here is what is said of it by those who have seen the Honey Almanac :

I have just been looking through the "Honey Almanac." Almanac! it is rather a cyclopedia of useful knowledge. It reveals to us the wonderful curative powers of honey. Who would not rather produce it than be a King upon his throne?—Mrs. L. Harrison, Peoria, Ills.

The "Honey Almanac" is a novelty, and I wonder that such a publication has not been thought of before. I am much pleased with it, and think you do not misstate the facts when you say, "Wisdom would distate that a million of them be scattered by the first of January"—only in making the number too small. It is just the thing to keep honey before the people. It is a cheap and permanent way of advertising honey.—A. B. Mason, Auburndale, O.

The "Honey Almanac" is just the thing. If freely distributed it will sell tons of honey, not only for the present, but in the future. It is well gotten up, and the person suggesting it should receive a vote of thanks from all honey-producers.—H. D. Cutting, Clinton, Mich.

The "Honey Almanac" is at hand. The idea is a novel and an excellent one. and I believe it will pay well for bee-keepers to put it into the hands of the people; also to secure places for it in conspicuous positions where it may be read by many.—R. F. Holtermann, Romney, Ont.

The "Honey Almanac" has just come to hand, and I must say that it is just what it was promised, and it is also just what bee-beepers have been long in need of, a strong lever, and instructor to enlighten the people concerning honey for food as well as medicine. It lacks nothing in matter of interest, and is perfection in general.—(Rev.) S. Roese, Maiden Rock, Wis.

The "Honey Almanac" is just received, and carefully examined. It surely will be a powerful "worker" in the hands of the producer of honey, as well as all who contemplate dealing in any way in a pure article. One of the many grand features of the Almanac, and of which every bee-keeper should be proud, is the refutation of the falsehood about so-called "artificial comb honey."—J. M. Hicks, Indianapolis, Ind.

The copy of the "Honey Almanac" is to hand. We believe that it will be a grand educational medium among the masses, regarding the many uses to which honey may be put. Being practical publishers, we may say that the price is very reasonable, and should make large sales; and these, in their turn, should assist in disposing of the crop, if judiciously distributed.—F. H. Macpherson, Publisher *Canadian Bee Journal*, Beeton, Ont.

The "Honey Almanac" is in every respect good. Its recipes for cooking are all truthful to my certain knowledge, and should help to sell the honey crop. To get honey into more general use, and get a remunerative price for it has been the hardest thing to accomplish in my long life as a bee-keeper, and my progress has been slower and less satisfactory than in any other branch of the business of bee-keeping I have tried to master.

To show you that our large crop of this year has all been bought up and shipped to the cities at 10 cents per pound, how many tons of honey must a bee-keeper have to see much money at this price? Our competition is getting to be of the worst kind. My honey crop is mostly in my honey-room, and will remain there until next summer, unless I can get 12½ cents per pound for white clover and basswood, and 8 cents for darker and buckwheat—all of it in small sections. At these prices, bee-keepers can only make one hand wash the other.—R. Dart, Ripon, Wis.

The "Honey Almanac" is received. It is a beautiful piece of work, both typographically and in the "make-up." Containing, as it does, so many valuable recipes, etc., makes it a very convenient piece of literature for every household. Let me congratulate you on your method of handling the different kinds of honey on the last page. It is well done. And the "Wiley *lie*" is refuted in good style. I hope you will be able to place an Almanac into the house of every purchaser of honey during this and the coming year.—E. L. Pratt, Marlboro, Mass.

The neat "Honey Almanac" came to hand. I am surprised to note the many uses enumerated to which honey may be applied in cooking, medicine, etc. The dealer in honey, and the producer, could well afford to supply the Honey Almanac to their customers, and thus help the trade, by spreading a knowledge of the uses to which honey may be put.—L. F. Abbott, Lewiston, Me.

It has been a pleasant task on my part to examine the new "Houey Almanac." It is certainly a very complete exposition of honey, and its useful qualities. A judicious circulation of the Honey Almanac among the people cannot fail to bring the good qualities of honey as a food and a medicine in its most favorable light before the public.—G. W. Demaree, Christiansburg, Ky.

The "Honey Almanac" is received, and its contents are examined. It "fills the bill to the dot." I am only sorry that over 3,000 cases of honey handled this season does not each contain one. No honey dealer should pack or ship a case of honey without the Almanac accompanying the same.—J. W. Bittenbender, Knoxville, Ioa.

The "Honey Almanac" recently received has been read with pleasure and interest. I should judge that its contents are of the right kind to fit it as a missionary in the cause of honey production and consumption. In one house it will be kept at hand for use.—S. B. Ryder, Brandon, Vt.

The "Honey Almanac" is received, and judging from its make-up in general, and the object of its issue in particular, I think that it will be a great help in selling the honey crop when distributed among the consumers. It suits me to a T.—J. F. Latham, West Cumberland, Maine.

I am pleased with the "Honey Almanac." It is a useful, convenient, and interesting pamphlet. I think it will encourage the use of honey, and help to sell it.—Franklyn Howland, Agricultural Editor of *Standard*, New Bedford, Mass.

The "Hone Almanac" is received. We sell all our honey by the barrel. If we were selling at retail we think it would pay to give away a lot of the Almanacs.—E. France & Son, Platteville, Wis.

The "Honey Almanac" is just "a dandy." I must have some of them.—L. W. Lighty, East Berlin. Pa.

Its 32 pages are filled with interesting facts, figures and suggestions concerning the uses of Honey for Food, Beverages. Cooking, Medicines, Cosmetics, Vinegar. etc. Also, its effects on the human system are tersely noted; a brief refutation is given of the Wiley lie about manufactured comb honey; a short dissertation sets forth the mission of bees in fertilizing the flowers. and increasing the fruit product. Instead of being an injury to fruit. bees are the fruit-growers' best friends.

Beeswax, its uses, how to render it, and its importance as a commercial product, is described, and 17 useful Recipes are given.

Prices: $2.50 per 100; 500 copies for $10.00; 1,000 copies for $15.00, delivered at the freight or express office here. The bee-keeper's Card will be printed upon the first page, without extra cost, when 100 or more are ordered at one time. Postage, 40 cents per 100 extra. All orders can now be filled as soon as received.

QUERIES and REPLIES.

Ventilation of Bees Wintered in the Cellar.

Written for the American Bee Journal

Query 669.—How can I give my bees ventilation in the cellar, this winter? Would it do to put one thickness of sacking on top of the honey-board, then put on the cap? Last winter I had trouble with dampness in the hives. My cellar is very dry.—Iowa.

I have no experience in cellar wiutering of bees.—M. Mahin.

Leave the cap off entirely. Leave it on the summer stand, and mark the number of the hive on it.—Dadant & Son.

Keep the temperature in the cellar even at 45 to 50 degrees, Fahr., and leave the cap off. Keep the mice out of the cellar.—J. M. Shuck.

I only leave the entrance wide open. I find they do just as well with a board cover as with cloth, etc.—A. J. Cook.

I do not make any provision for ventilation above, but I like a large entrance. Most of my hives have a two-inch space under the bottom-bars.—C. C. Miller.

I do not believe that your bees need any more ventilation than they now have. The "sacking" scheme will work well, just as you propose.—James Heddon.

Give large entrance ventilation, but never give any top ventilation. If you confine all the heat on top, you will not have any dampness to cause trouble.—H. D. Cutting.

Put plenty of absorbents over the brood-frames; raise the body of the hives ⅜ of an inch from the platform, by the use of blocks, and keep the temperature as near 45 degrees as you can.—J. M. Hambaugh.

By removing the bottom-board and leaving the bottom of the hive open. The sacking would do little good. I cannot think that the dampness in your hives did any material injury.—R. L. Taylor.

If you use the sacking in the manner you propose, and raise the hive a full half inch from the bottom-board (in case this is movable), I should think that you would have no trouble with dampness. If the bottom-board is fixed, open the entrance and all ventilating holes to their full capacity.—J. P. H. Brown.

Proper ventilation of the cellar or repository is generally obtained by either surface or sub-earth outlet. I would advise the use of at least two layers of sacking.—Will M. Barnum.

I use no caps on the hives in the cellar. Two or three thicknesses of old carpet, or a bee-quilt, is as good as anything over the frames. I do not use a honey-board while the bees are in the cellar.—G. M. Doolittle.

Your cellar is probably too cold. In my judgment, it is the cold that causes the condensation—the inside of the hive being warmer than the outside. If the outside temperature is 45 to 50 degrees (45 degrees preferred, as the bees are more quiet), and never colder, I hardly think that they will need more ventilation than they have in summer.—Eugene Secor.

No system of ventilation in cellars will prevent dampness in hives, if the cellar is too cold. The temperature should never go below 41 degrees in a dry cellar, and it should range much higher than that in a damp cellar. A light, porous packing over the frames is the best covering. Leave the entrances as in summer time, and take off the caps.—G. L. Tinker.

Leave the entrances open the full width. One or two thicknesses of sacking or carpet will do nicely, but it would be better to leave the "cap" off entirely. A wooden cover with a bee-space between it and the brood-frames is as good as anything, and better than any kind of packing, when wintering bees in the cellar.—C. H. Dibbern.

There are many ways of ventilating; any plan that will allow access of air at the bottom, and allow it to pass out at the top of the hive, will give ventilation; the amount can be judged to suit circumstances or fancy. With a perforated honey-board, the plan that you mention is as good as any.—J. E. Pond.

In my opinion, your cellar needs more ventilation, and not your bees. Before we put in a sub-earth ventilator, honey stored there would get wet, although the cellar is one of the driest. I would not put on the caps, but cover the sacking with a piece of carpet, a "comfort," or something of that kind; put sticks across at each end, and place on another hive above.—Mrs. L. Harrison.

"Iowa" conveys the idea that upward ventilation of his colonies is a necessity in his cellar; I have succeeded just as well in wintering without, as with, upward ventilation. I never winter my bees out-doors—I cannot afford it. I use quilts instead of honey-boards, and leave them on the hives when put into winter quarters, just as the bees fixed them in the fall, *but* the bottom-boards are removed from the hives. If the "sacking" is such as will retain the heat made by the bees, it will be all right. I would leave off the "cap" or cover.—A. B. Mason.

When engaged with my experiments with bees in the cellar, winter before last, I found that a colony of bees could be drenched with condensed water in a week's time, by simply putting enameled cloth over the frames, thus checking all upward ventilation. With a burlap covering they were kept practically dry, the moisture escaping through the porous cloth. After all my experiments that winter, I concluded that no material tended so much to keep the bees dry, as a clean cloth, over the tops of the frames.—G. W. Demaree.

Dampness is generally of no particular detriment to bees wintered in cellars. You can ventilate the cellar, but it will not entirely prevent dampness, if it is naturally damp; but as yours is a "dry cellar," simply take off the caps and leave the entrances open as usual. The sacking will do very well as suggested.—The Editor.

How and When to Move an Apiary a Short Distance.

Written for the American Bee Journal

Query 670.—1. I shall be compelled to move my bees this winter about 50 feet from the present location. How can I best do it? 2. At what time would be best? I practice out-door wintering.—Ohio.

I would move them at any time now. Place some obstruction before the entrances, and they will adjust themselves to the new location.—H. D. Cutting.

Toward spring, or just as late as possible, before they have a general flight. Move them so quietly that they will not know they were touched.—James Heddon.

I would do it on some evening. Place some boards or obstructions in front of the entrance, and it will all be well—no loss to amount to anything.—J. P. H. Brown.

The correct time for moving bees is during the middle of winter. The best way for so short a distance would be to move them by wheelbarrow.—Will M. Barnum.

I would move them after a two or three months' confinement, if possible, and arrange them as nearly as possible as they previously stood on the old stands.—J. M. Hambaugh.

Move them when it is too cool for flight. Put the hives in the new location, in the same order as in the old one, and lean a wide board over the entrance to each hive.—J. M. Shuck.

I would move them while the weather is warm. I moved bees once during cool weather, and after their first flight, I could scoop up the frozen bees. Had they had an all-day flight, they would have found their way back.—Mrs. L. Harrison.

Any time. Face the hives about, and place a board over the front. Nearly all will go to the new home all right. Keep watch the first day they fly, and if some do go back to the old place, put a box on the stand, and return them at night. We moved all of ours twice last year, with no loss.—A. J. Cook.

Within the last week I moved some colonies about 10 feet, and turned the hives completely around. To-day the bees have been flying all day, and I could not see that any got lost.—Eugene Secor.

Move them at any time during the winter, after the bees have been confined to the hive for three or more weeks. Bees always mark their location anew on their first flight in the spring.—G. M. Doolittle.

They may be moved at any time late in the winter, before spring flights occur, with little loss. Two men should be able to carry them the 50 feet, without much disturbance to the colonies.—G. L. Tinker.

1. In your hands, as at that time of the year it is well not to excite the bees. 2. At the beginning of the longest term of unbroken cold weather of the winter, so that the bees will be more likely to re-locate their hives when they at length come out for a flight.—R. L. Taylor.

It is a very unpleasant job at any time, unless you can move them a foot at a time. We would prefer to do it in the spring, although it may do now. Put a slanting board in front of every entrance, when you move them, to show them that there is a change of location.—Dadant & Son.

The moving should have been done during warm weather. As the matter now stands, I should move them all at once after the bees had done flying for the day, and place a board against the entrance of each hive—not, however, so as to close the entrance, but to cover it. Make the old stand as unrecognizable as possible.—J. E. Pond.

I should remove them after they had been confined a long time in their hives, and just before a flight in early spring. Place a wide board in front of each hive, to cause the bees to mark their new locations.—C. H. Dibbern.

Move them in the evening, after it begins to get dark. If practicable, let the hives front towards the old location. Place them as nearly as possible in the order in which they were before; and remove everything from the old location, as far as practicable, with which the bees were familiar. There will be no trouble. I have tried it.—M. Mahin.

1. I do not know, but probably by getting some one to help you carry them. 2. I do not know, but I think that a good time would be, as soon as settled cold weather comes. Have the places fixed to put the hives, and move carefully, without disturbing the bees; and if placed in the same relative positions in the new location, as they now occupy, there would probably be no trouble, especially if a short board be leaned up against the front of each hive, till the bees have re-marked their location.—A. B. Mason.

In the past ten years I have twice moved my entire apiary about 100 feet, and with entire safety to the bees. I selected a day in the winter that was just cold enough to keep the bees quietly in the hives; having first staked off the new site, the hives were borne between two men, and placed on their new stands, as nearly as possible as related to each other, as they were on the old site, which was cleaned up, and changed in appearance as much as possible. As a further precaution, a couple of shingles were leaned up in front of each hive. There was some confusion apparent on the first warm day that followed, but all was soon quieted after a few flights.—G. W. Demaree.

Move them very gently towards spring, and place a board or some obstruction over the entrances, so that the bees will mark their hives anew when they come out for a general flight.—The Editor.

Botanical.

I enclose a specimen of honey-plant of the mint family. It has a jointed root. Please name it for me. Is it very noxious on a farm? Chas. B. Fritts.

[It is wood-sage (*Teucrium Canadense*)—one of the mint family, all of which produce honey of excellent quality. It flourishes on low, wet ground. It is sometimes called "American Germander," and is very common in the wet lands of the Northern States. It is not a noxious weed.—Ed.]

☞ *Table Talk* for November is on hand to cheer our body—and our mind, too, for that matter—with its pleasing presence. It is filled with its usual amount of readable matter, and well sustains the reputation and popularity the magazine has earned. It is published by the *Table Talk* Publishing Company, 406 Race Street, Philadelphia. Price, $1.00 a year; single copies, 10 cents.

☞ Whoever before heard of a set of the Waverley Novels being sold for less than $12.00? Just think of our offer of either these or the Works of Dickens, with the Bee Journal until Dec. 31, 1890—all for $2.10! See the last page of this paper.

CORRESPONDENCE.

CARNIOLANS.

The Characteristics of this Race of Bees Described.

Written for the American Bee Journal

BY E. F. QUIGLEY.

Since my report on page 268, I have had some inquiry about the Carniolan race of bees. I would say that they are as good honey-gatherers, with me, as the best Italians. They do not crowd the brood-chamber, if given a chance to store above, and a smaller number will enter a surplus case and work. They use very little propolis, their sections are clean, as compared to other bees, and the sealed honey has a fine appearance, the capping being very white. They have not been so bad about swarming for me as the Italians, and they are much gentler than other races.

The Carniolans get out early, and have worked later in the sections—in fact, they were the only ones giving any fall surplus. All swarms were hived in one section of the new Heddon hive, and none of them swarmed again. I believe that they will stand contracting better, and contracting will relieve the surplus of bees that are reared in large hives.

They are quiet in winter, and in summer they are slow about settling. The progeny of the queen introduced to a cross colony, are not so gentle at first as they will be afterwards; this disappointed me for a time, therefore I shall use my best colony as nurse-bees.

They cling to the combs better than black bees, but not so well as the Italians. They defend their homes well, but I have never seen one trying to rob another colony. This fall they found some wet candy that was thrown out by a groceryman within 10 yards of some Italians, and the Carniolan bees had carried it nearly all home before the other bees found it. I noticed them working very busy, when the others were not flying, so I hunted them up, with the results as stated.

It takes but little smoke to subdue them, and some of them can be handled without any. A small swarm of the Carniolans stored 48 pounds of surplus white clover honey in the comb, and still have about 25 pounds in their hive. I shall breed for gentleness and honey-gathering qualities.

Care should be taken that the surplus honey is not taken away too close, as they will store all the honey above, leaving the brood-chamber empty; this is a valuable trait if properly used. My system is, to give them a case of frames of empty comb, placing it below, about the close of the clover harvest, and as the queen goes below to lay, the case above is filled with honey as soon as the bees hatch, and at the close of the season the lower case is removed, crowding the bees into a small space for winter. I shall discard all other bees, for I like the Carniolans, all things considered, better than any other race of bees.

Unionville, Mo., Nov. 1, 1889.

THE SIERRAS.

The Black-Incense Cedar Yields Thick Honey.

Written for the Western Apiarian

BY S. L. WATKINS.

The "black-incense cedar" is one of the best honey and pollen yielding trees of the Upper Sierras. This species of cedar abounds only in certain locations, growing at an elevation of about 4,000 feet above the sea-level.

It is a singularly beautiful tree, with its black, shiny bark, light green foliage, and striking appearance, distinguishing it from its other companions of the forest. These species of cedar sometimes attain a height of from 150 to 200 feet, and frequently 8 feet in diameter. The young trees are generally gathered into family groups, each sapling exquisitely symmetrical, with the primary branches whorling irregularly around the axis of the tree, while each is clothed with its light, green, feathery foliage.

It does not seem to be particular as to the soil it grows on—smooth or rocky, wet or dry; it makes out to live well on all of them.

Old trees of this species are usually dead or broken off at the top, caused by winter snows and winds; trees thus broken off, usually send out young shoots which grow up parallel with the main axis of the tree.

In the fall of the year they are loaded with myriads of beautiful, small yellow cones, producing a golden tinge, which gives the tree a very beautiful appearance. It is about this time of the year that it begins to yield honey, which seems to exude from the bark and the twigs of the tree. Some seasons the trees are just dripping with it. This honey exudes from the trees for about two weeks; at the end of that time it crystallizes, and looks like small drops of granulated sugar on the under side of the limbs; the first rains usually wash it all off.

I have made several experiments to determine whether it was the work of *aphides*, or plant-lice, which usually cause the so-called honey-dew.

This honey cannot be extracted at all, on account of its great density; the combs would be torn to pieces before the honey would start to come out.

The honey gathered from this source has a spicy, cedary taste, not at all unpleasant. Some people prefer this kind of honey to all others, myself among the number. This honey is of a beautiful straw color, weighing between 12 and 13 pounds to the gallon.

The botanical name of the incense cedar is *Libocedrus decurrens;* but this species of black-incense cedar is entirely different from the common kind. I once came across a variegated incense cedar, half of the foliage of which was a dark green, and the other half pure white. Viewed from a distance, the tree looked as if it were covered with white flowers. Whether this is a distinct species of cedar, or only a freak of nature, I am unable to state. I should be pleased to hear the opinions of California botanists on these two varieties of Cedar.

Placerville, Calif.

EXTRACTORS.

Description of a Ten-Frame Honey-Extractor.

Written for the American Bee Journal

BY LOUIS C. KOEHLER.

On page 677, Mr. Poppleton says that he is using a honey-extractor which extracts 6 frames at the same time, and he probably believes that he has something good. At the same time he says if any one has any better extractor, let him describe it. All right, I have it.

Last winter I made an extractor, the can of which is made of galvanized iron, 29 inches in diameter, and 26 inches high. It has 3 legs 12 inches long, bringing the can 12 inches from the floor. The central shaft, to which the revolving comb-basket is attached, is a ¾-inch iron rod, connected directly with the gearing above, and resting on a cone at the bottom. The revolving comb-basket is made of ⅛x⅜ inch steel, and is large enough so as to leave a 1½-inch space between the basket and the can.

I can extract ten frames at the same time. My bee-hives are all the 10-frame style, so I can finish the frames of one hive at once. The frames in the surplus apartment are 18x5½ inches.

The principle upon which it works is a very simple one—a band running around small wheels fastened to the shafts of the revolving comb-baskets.

(I can put in ten frames, so it takes 10 wheels.)

When I wish to reverse, I simply take hold of the nearest comb, and turn it, and all of the others will do the same. It takes no time to change sides, and it is a perfectly smooth and noiseless operation.

I am not afraid to assert that nothing so successful has been placed before the bee-keeping public. The perfect facility and great rapidity with which it works, will enable the operator to throw out 200 per cent. more honey in a day than he can with the non-reversible style.

I wish my bee-keeping friends could be on hand during a honey-flow, and see it work, extracting ten frames at once. The handle is attached to a horizontal rod extending outside of the can. The motion of the crank and basket being always in one direction, there is no slamming or banging, as is the case where the reversing of the comb-pockets depends on the sudden reversing of the crank and basket.

Manitowoc Co., Wis.

SURPLUS HONEY.

Preparing the Bees for Winter—Selling the Surplus, etc.

Written for the Western Plowman

BY C. H. DIBBERN.

The bee-season is now entirely over, and all preparations should be completed early this month for the safe wintering of our bees. It will be found very difficult to handle frames now, and if such preparation requires this, it should have been done earlier.

Many bee-keepers contract their hives by taking away the combs, and this can still be done if one goes about it in the right way. I would prefer to do this early in the morning, before the bees begin to fly around the apiary. I would also want to feel reasonably sure that a day warm enough for bees to fly is to follow. Blow a few puffs of smoke in the entrance, then quickly pry the honey-board off with a hatchet or other tool, and blow a little smoke under it, and quickly throw a rubber cloth over the top of the hive. The bees will generally be found clustered near the center, and can be readily removed by pulling the rubber cloth cover to the other side. Insert the division-boards. Blow a little smoke under the cover as it is removed, and replace the honey-board. One wants to be quick about this kind of work now, or the bees will be on the war-path. It is also well to give them a puff or two of smoke at the entrance occasionally, as they have a habit of boiling out and making life miserable.

CELLAR WINTERING.

How shall we best winter our bees? That is a "condition, not a theory, that confronts us." While I am decidedly a cellar winterer, I have no fault to find with those who differ from me. It is all a question which is best, the easiest for us to do, and the safest for the bees. Could I know for certain that each month of our long winters would give us a few warm days, I should feel perfectly safe in leaving them on the summer stands with little protection. But in this section we can never feel sure that we will have such a winter, and the only safe way is to expect a hard, long winter every year. If the bees can have a good flight late in November, just before removing them to winter quarters, I feel reasonably safe that they will come out all right in the spring.

Should bees be packed with chaff or many quilts if wintered in a cellar? I think not. A layer or two of old rag carpet, or some other suitable cover, is all that is necessary. Out-of-doors it is different. Not only every hive should be protected by every means at hand, but the whole apiary should be protected by a tight board fence on the north and west sides. Those who have but few hives can probably go to the trouble of getting dry-goods boxes and packing them around the hives, with chaff, leaves, etc., but what an endless task this would be when one has two to three hundred hives to prepare. It would certainly be much easier, as well as safer, to "pack" them into the cellar. The bees are in excellent condition for winter, as they are generally strong in numbers, and are well supplied with a fine quality of honey—no honey-dew this year, and I feel no anxiety as to their safe wintering.

THE TREMBLING DISEASE.

Some bee-keepers still seem to be greatly troubled by what is known as the trembling or nameless disease. We had a number of colonies affected two years ago. We then gave them a good sprinkling of salt water a few times on top of the frames, and also kept salt water dripping from a barrel where the bees could get all they wanted, and the disease soon entirely disappeared. We believe that this salt-water cure is effective every time, if thoroughly applied.

SELLING THE HONEY.

The market for our surplus is still the main topic with many bee-keepers. Of course, when we have a good crop there is the usual talk of over-production, and that after all bee-keeping "don't pay." Such fellows are apt to compare their hard lot with the rich banker, who, they imagine, has nothing to do but lounge in his luxurious office while his cashier loans somebody else's money, taking iron-clad security and his interest in advance. Well, it is always some one else that seems to have an easy time of it.

But really, is the honey business so bad? Some people do not seem to be able to sell anything. Many bee-keepers belong to this class. They can produce the finest queen, have good hives, implements, work hard and secure fine crops of honey, but when it comes to selling, they are all at sea. Now instead of studying the markets, and looking over our vast country and finding a market there, they will dump it on an over-stocked city near home, or try and work it all off cheap to a few neighbors. Such men lack business capacity.

With me it has been different. I have never yet had a season that I could fill all my orders. This year, since I have had honey off the hives, it has gone like "hot cakes," and I have not had to sell at very low prices, either. Early in the season I made my prices, and have not been obliged to "come down." Of course I have lost some sales by parties claiming that they could buy for less from Tom, Dick or Harry. But I have had orders from first-class customers as fast as I could pack the honey, and my stock will be gone long before Christmas. Now what good would more orders at low prices do me? The trouble is, that there is no business about many, and they do not understand proper distribution. I believe there is a paying market for all the honey that will be produced in this country for many years to come, if the proper market is hunted up and supplied.

WINTER QUARTERS.

The last week in November is the time to be getting the bees into winter quarters. It is a good idea to let them have a flight as late as possible, as the winter will be long enough, anyway. The only danger in waiting very long after or about Nov. 20, is that no warm day will come, and that the hives will become covered with snow and ice. When so covered, and in cold weather, it is not only disagreeable work, but the jarring and cracking in getting the hives loose and removing covers greatly disturbs the bees. Then, too, the combs are apt to be covered with ice, which will melt as soon as put in, thus wetting the bees, and making a bad beginning for wintering the bees safely.

Milan, Ills.

QUEEN-EXCLUDERS.

Rearing Queens Above a Queen-Excluding Honey-Board.

Written for the American Bee Journal
BY HENRY ALLEY.

It may be fair for Mr. Doolittle to describe my oldest method of rearing queens (page 663) in comparisou with what he terms the latest and only practical method of rearing queens; yet the fair-minded will hardly so consider it. On the same principle, if Mr. D. desired to show the good points of the hive he is using, in comparison with the one I am using, he would bring forward the old box-hive that I used 30 years ago.

As Mr. Doolittle made no allusion in his article to my latest method of rearing queens above the queen-excluder (not honey-board), I must think that he is unacquainted with my *very latest* methods for rearing queens. For the sake of Mr. Doolittle's credit for fairness, let us suppose he has read nothing in the bee-papers since August, 1888.

Mr. D. has labored hard, as will be observed by his very thin argument, to make the readers believe that his method is not a "fussy" one. Mr. D. says: "Certainly the making of the cell-cups cannot be what is alluded to as 'fussy,' for these can be made during winter evenings."

Well, if making cell-cups as described by Mr. D. is not a "fussy" job, pray tell what is, properly speaking, "a fussy job." Considering the fact that the comb containing eggs can be used in separate cells, prepared and fastened to the comb, or upon a stick, much quicker and easier than the cell-cups are prepared by Mr. D., is my reason for applying the word "fussy" to Mr. Doolittle's method.

For years I have used single cells, and the eggs in them for cell-cups. This year I have had wonderful success by that method of having queen-cells built. Twenty-five cells can be attached in a row to the bottom of the comb of one Langstroth frame; between each cell there will be a space not less than one-fourth of an inch. Does not Mr. D. think that this method is far more in accordance with nature, than the artificial cell-cups that he makes? The labor can be performed in less than one-half the time required to make the artificial cell-cups.

One other point that should be noticed here, is this: "Next we have the getting of the larvæ for the cups, and the two cells which contain the royal jelly, which is to be put into each of the cups." It seems strange that Mr. D. has ready-made queen-cells on hand at all times, *and never has any queenless colonies.* I stated in the "Handy-Book," that I have no queenless colonies in my apiary. I meant it, and renew the statement here. The only thing we shall differ upon, is as to what constitutes a colony of bees.

When a colony of bees has been deprived of its queen while the combs are full of brood, it is, properly speaking, a queenless colony; but when the bees are taken from the queen and brood, that, then, is not a queenless colony—these are queenless bees, and nothing more. Now a queenless colony is never found in my apiary. I know too well the importance of having a queen in each hive.

Having made that matter plain, let us look again at what Mr. D. says in commendation of his method of rearing queens. Mr. D. produces figures to show with how much less time and expense he can rear queens by his method, than I can by that old-fashioned method of mine.

Does Mr. D. really suppose that it takes me one hour to do the same work that he says he performs in 3½ minutes? What an idea! Let us see: I reared 2,500 queens between May 20 and Sept. 25—that is, that number of cells were started in that time. This made 17 weeks, and I devoted less than one hour each week in the preparation of these cells or cell-cups.

Mr. D. should know that I do not confine bees in a swarm-box ten hours in order to prepare them for cell-building. Then, again, suppose I do—what can be the harm? Is any time lost in the operation? Can there be any objection to keeping kees so confined for any length of time? So far as spending any time in putting bees confined in the swarm-box into the cellar, I will say that I never found it necessary to do that in all my 30 years' experience, any more than I have found it necessary to make artificial cell-cups. I prefer to let the bees do the latter work for me; and the former need not be done unless one chooses to do it.

Mr. Doolittle must find no fault if I express an opinion of the quality of the queens reared by the methods he recommends. With 30 years' experience, wholly devoted to rearing queen-bees, I feel able to give an opinion as to what are the best methods for producing queens. I am sure that queens reared above a queen-excluding "honey-board" when no hatching brood, and but a few young bees, and only those that happen to stray into the chamber are present, are not first-class queens. Does not every man who has had any experience in bee-culture, know that young bees will not leave the brood-nest and take up quarters on cold, dry combs? You might as well expect a small chicken to desert the old hen at night and nestle under a block of ice. If there are no young bees to build the cells and nurse the larvæ, how can good queens be reared? Mr. J. A. Green, one of the best authorities on bee-matters, says this on page 805 of *Gleanings* for 1889:

> A great deal of experimenting has no doubt been done this season with the new methods of having queen-cells built and queens fertilized above perforated metal. So far as my experience goes, it is easy to get cells built while there is a queen in full vigor below, though these cells are by no means of the first quality, except under favorable conditions.

What are those favorable conditions? Why, young bees by the thousands, and stores in abundance. Or, in other words, just the conditions that the colony is in when about ready to cast a swarm, and not dry combs and old bees. I have always made it a practice to put my colonies in the swarming condition before using them for cell-building. The proper way to put a colony in that condition is by liberal feeding when natural forage is not abundant; any other method does not come under the head of queen-rearing.

We all know that there is a demand for queens when bees are not in a condition to swarm; hence we must devise the best means to procure queen-cells. I know of no better way to rear queens than by having the cells built in a hive that is solid full of brood, young bees, and with a laying queen present.

Wenham, Mass., Oct. 21, 1889.

COMB HONEY.

The Proper Way to Produce Honey in the Comb, etc.

Written for the American Bee Journal
BY FRANK COVERDALE.

It often occurs to me how particular we are to secure nice, white sections, and this is right; but what kind of a section-case should be used? We have been in the habit (at least a great many of us) of placing the sections on the hives with the top and bottom exposed to the bees, getting them colored and propolized, and waxy and sticky they are, for a knife will not clean them. Not only is it much more unpleasant to handle them, but it shows a great loss in appearance, which is of so much importance in the grocery store, or our city market; for the eye must be pleased first.

The foregoing state of affairs, along with breaking and leaking of sections, is very detrimental to our comb honey market. As I chanced to be at Clin-

ton, Iowa, I made it my business to inquire as to the condition of the honey market, and as I went from store to store, I found a goodly amount of this sort of honey which was selling at from 8 to 9 cents per pound; of course this honey was dark in color, but if the sections had been nice and clean, it would have been better in appearance, and would, without a doubt, have sold for a higher price; for who is it that has money in his pocket, that can pass by a lot of nice, clean sections full of comb honey, and not be tempted even so much as to buy at least one?

The "Honey Almanac," in my opinion, will prove to be a grand success, and will aid much in consuming our health-giving sweet. I would suggest that where one bee-keeper thinks that he cannot afford to get 1,000 Almanacs, he can get two of his bee-keeping neighbors to send with him. They should then be scattered all through the land, and when we have educated the people of the United States to eat a little over half a pound apiece per annum, our honey market will annually be in a better condition.

Welton, Iowa.

OLD COLONY.

The "Queen of Rosendale,"—a Colony 50 Years Old.

Written for the American Bee Journal

BY J. S. BARB.

On page 316 is a short letter describing an old colony of bees that we have on our place here in Oakfield, O. I thought that this was a pretty old colony—it *is* an old colony, at least for this section of country; but while I was on a visit to Virginia this fall, I saw a colony of bees that is a little older than the colony we have. This colony belongs to Mr. George W. Rosenberger, of Rosendale, Rockingham Co., Va., and is called by him "The Queen of Rosendale"—a name which is quite appropriate.

I will give the history of this "Queen of Rosendale," and will first give a copy of an article in the *Bee-Keepers' Magazine*, of August, 1880, which was written by Mr. Rosenberger, describing the "Queen of Rosendale." The article is headed, "Lessons from an Ancient Bee-Hive," and is as follows:

DEAR SIR:—I thought that it might be some pleasure, as well as some information, to give a short sketch of an old colony of black bees that I own. Just forty years ago this June, there came out of my father's hives at this place, a second swarm, containing about half a gallon of bees; he said to me, then a boy, if I would get a hive and put them into it, I might have the bees. I did so, and put them on a plank on one side of the yard, where they remained until the commencement of the late war. They were then moved to the attic of my dwelling-house at Rosendale, where they remained four years, flying in and out of a window, and storing from 20 to 40 pounds of surplus honey per year.

As soon as the war was over, they were brought down from the attic, and placed on a stand under a pear-tree in the yard, where they are to-day, in an average prosperous condition. I call this old mother of all my bees, hived forty years ago, the "Queen of Rosendale." She and her succeeding daughters down to the present time, have been swarming until they are now the mother of a large number of colonies. How often this old mother has swarmed, I know not, but very frequently, I assure you; and she has always given me from 20 to 40 pounds of nice surplus comb honey annually. I have from her, so far this year, 20 pounds; the second box is nearly full, and will be completed in a few days, which will make 40 pounds for this season.

I have never kept an account of the amount of honey that they have produced; I am sorry now that I did not, but if this could be given, it would afford both pleasure and information that would be worth knowing. I think that I might state, without fear of exaggeration, that this colony of bees has produced 25 pounds of surplus comb honey per annum; this would be in the forty years, 1,000 pounds, and say at 18 cents per pound, it would be worth $180; and if all the surplus honey produced by her daughters, or colonies originating from this old queen, was computed correctly, it should amount to the nice little sum of $1,000. This goes to show what can be done by the keeping of a few bees, requiring no loss of time.

The hive in which the bees have resided for the last forty years, is made of pine lumber, one inch thick; the outside measure of the hive is 12x14 inches, and 19 inches high. There never has been any comb removed from this hive since the bees were first put into it, consequently the combs are as old as the hive. I am unable to see any difference in the size of these bees, as compared with any others in my apiary, although some have been reared in new combs less than one year old.

G. W. ROSENBERGER.

New Market, Va., June 25, 1880.

The above is given just as Mr. Rosenberger had written it. I remember reading it, and knew I had the paper containing it among my bee-papers, but I did not think, when reading the article, that I would ever get to see this old colony, which I did see on Sept. 28. This old colony is still alive, and in good condition, and is yet in the same old hive, and the same comb that was built the first season.

Mr. R. has a very nice home, situated near the grand old Massanutton Mountains, and is in a very good section of the country for keeping bees. When I was there his bees were working on the wild asters, which are quite plenty in that locality.

I will now give you a few items in regard to the "Queen of Rosendale," which were given to me by Mr. R., while I was at his place:

The "Queen of Rosendale" was hived in 1840, put in a common box-hive, and is still in the same hive, and doing as well as any colony in his yard; has stored regularly from 20 to 40 pounds of comb honey yearly, making at least 1,200 pounds in 49 years, which, at 15 cents per pound, would make $180; has swarmed nearly every year, and on one occasion it swarmed three times, and the third swarm had five queens. The comb in the hive is the same made first 49 years ago, and the bees are just as large as they ever were. The queen is black—the common bee of the country. If any one has an older colony, I would be pleased to hear from him.

This year I have 65 colonies, and will have about 1,200 or 1,400 pounds of comb honey, which is worth 16 cents per pound here at home. Several years ago I had 27 colonies, and produced 1,727 pounds of comb honey, which I sold for $12.52 per colony, on an average.

We had a very poor season here this year for bees, especially the forepart, but through September, bees did better than ever before during the fall. I have sold over 100 pounds of fall honey, and still have some left. G. W. ROSENBERGER.

WISCONSIN.

Satisfied with the Results—Golden-Rod Honey.

Written for the American Bee Journal

BY ALBERT H. LIND.

I have no reason to complain about the honey crop this year, as my average is about 125 pounds per colony, spring count. I sold all of my comb honey at home at 14 cents per pound, while grocers at Fond du Lac (our nearest market) were buying good honey for 11 and 12½ cents.

A certain bee-keeper in this vicinity sold his honey at 11 cents per pound to "get rid of it," as he said; and after awhile he came out to my apiary and bought honey for relatives or friends in Chicago, and paid 14 cents, when he had sold his honey for 11 cents. The above shows the folly of rushing honey into market, at ruinous prices.

HONEY FROM GOLDEN-ROD.

On page 636 a general opinion as to the value of golden-rod as a honey-plant, is asked for. With me it has never been a total failure, as bees could always be seen working upon it; but I also think that it is at times overrated as a honey-plant, for the honey is dark, and must be sold at very low figures.

I send a clipping from the New York *Sun* for Sept. 22. It reads thus:

IT IS A BAD YEAR FOR BEES.—New Haven county and the adjoining county of Fairfield, are the two great honey sections of Western Connecticut. Thousands of pounds of honey are shipped from here to the New York market, and New Haven county buck wheat and clover honey are very popular. This year, however, the shipments of this concentrated sweetness will be small. The present season has been the worst for a long time past, and the bee-keepers will barely get enough money to pay them for the bother of taking care of their bees.

The long-continued wet weather has spoiled the honey of the flowers, diluted it,

as it were, until the bees would not touch it. Besides, the weather had a bad effect on the bees themselves. They became lazy and out of sorts. They would not leave their hives for any distant flight, and, when disturbed, they would sting with unusual energy. They accumulated no honey, and, for a living, they used their reserve stock, eating it all, and more than one bee-keeper has had to feed his bees to keep them alive.

With the blooming of the golden-rod came the bright, warm weather, and it seems that now more than ever the bee "improves each shining hour." The golden-rod contains an unusually fine quality of honey, and in every field where it has obtained a foothold, and along every country road, the bees are seen literally covering the bright yellow flower.

This shows that golden-rod yields honey in Connecticut.

Calumet Harbor, Wis.

The Honey-Bee.

Written for the American Bee Journal

BY MRS. FRED GRAHAM.

Bronze and gold, gauzy wings and merry hum—
Watch them how they go and come,
Extracting honey from every flower,
Working patiently hour by hour.

Do you know they a lesson teach
To all who come within their reach—
Busy, dainty little bees,
That gather honey from flowers and trees?

If we improve the time each day,
In the end, we will find, 'twill pay;
Taking each duty nearest at hand,
We then will be a working band.

Doing a kindness, cheering a friend,
Will pay us always, unto the end.
Let each one strive with all his might,
To do his work well, and cling to the right

Maumee, Ohio.

APIARY WORK.

It is No Child's Play, but Regular Work.

Written for the Prairie Farmer

BY MRS. L. HARRISON.

I would as soon be stung by a bee as be "bored" by an individual who wants to talk bees, and only knows that they "make honey" and have a terrible sting. I have a neighbor, who several years ago, captured a very large swarm of bees, and they have increased considerably since. This woman wants me to tell her what to do; and when I offer her books and papers, refuses them, saying, "I have no time to read them."

Of course she has all the time that there is, and prefers to use it in making fancy articles to adorn her home and person, rather than in studying bee-culture. When her bees swarm, she wants me to hive them. This I cannot do, for while away hiving her bees, I might lose my own; also to take off and put on surplus boxes. She wants the profit derived from keeping bees, but does not want the work of self-denial necessary to it.

"Good morning, Mrs. Harrison; I've come to spend the day with you, and ask your advice about my undertaking to keep bees. I must do something to earn some money, and I've noticed you, as I passed by, working with bees, and thought I might keep them, too. Do you ever get stung?"

"See here, my friend, I'm a busy, practical woman, and no time to sit down. I've a day's work to do in the honey-house, and if you want to learn about the business, I'll loan you a wrapper and an apron, and you can help. I'm not quite ready to go there yet. Suppose you start the fire in the honey-house; you will find the kindling and coal there, already."

"I never could build a fire, and it will spoil my hands, so I cannot crochet this beautiful white phantom. I do love fancy work, but I make so little money at it."

"You may as well know, right now, that bee-keeping is no child's play—plenty of hard work, and, if you choose to make it so, disagreeable. I have lived long enough to learn that every way of earning money has sooner or later its sting. In your fancy work, it's poor pay—you can scarcely earn the water that goes into your soup. You seem to like sitting in an easy chair, with some one to keep fire for you, while you run your fingers through that delicate wool. But the pay, is where the shoe pinches.

"I am now ready to work in the honey-house, and you can come if you choose. The work that I shall do today, is as much a part of running an apiary, as hiving swarms."

"Can I bring my fancy work and watch you?"

"No; you can either help work or stay in the parlor, or go home. It's no place for fancy work. Here is some work that you will be glad to do if you ever keep bees, and that is to remove these sections from this case—glad that you have honey for your work. Take this wide chisel and scrape off the propolis and comb from top to bottom; now with this thin-bladed case-knife, loosen the sections from the case all around; put these two little pieces of pine board on the table for the ends of the case to rest upon, and turn over the case. Take this little piece of board, which I call a 'follower,' and lay it across one row of sections, and tap gently with the hammer.

"Go over every row of sections in this way. Now they are all slipped down into the space made by the little sticks. Lift off the case—see! you was not careful enough; you let the corner of one section dig a hole into the face of that section, and now it cannot be packed as No. 1, for it will run and daub up a case. See, I have made a pan of manilla paper and fitted into the bottom of this shipping-case. If there should be any drip, the pan catches it, and keeps it from running out of the box and making a dauby mess. Put all the perfect sections in it which will be marked No. 1, and the imperfect ones into that pan, and they will be sold to customers who come here.

"This is one of the beauties of a home market; all pieces of comb honey like the section you broke just now, are never allowed to accumulate, but are sold for a less price than No. 1 sections, to persons who call to buy.

"Scrape off the propolis and bits of comb from the table into this all-metal sieve, and set it over this pan; I will pour boiling water over it, and put it into the oven. You will be surprised at the pretty, light-colored wax which will run down into the water from this refuse. We must not forget it, or it will run over, as soon as it boils.

"Here it goes, now. I will remove the seive to another pan, and set this out to cool. As the wax is all melted now, I will scrape the residue into a paper, and keep it to start the fire in the morning; for if I put it into the stove now, it will make a roaring hot fire, and cause that other pan to run over, and the burning wax would soon fill the house with bees, unless the door is kept shut.

"Look at the first pan of wax; how pretty it looks, now it is cool. I will pour the water from under it. Some day I will re-melt the wax, and cool it in tiny cake-pans, which make little cakes, that sell from here to laundry-women for a nickle apiece. The large cakes are sold to druggists who deal in oils and paints. There are sun wax-extractors, which are lined with bright tin, and covered with glass. The product from these sells for a few cents higher than when melted with fire heat. These are used exclusively in California, for both honey and wax. The wax will be in a cake on top, and the honey underneath."

Peoria, Ills.

Always Mention your Post-Office County and State when writing to this office. No matter where you may happen to be for the hour when actually writing—never mention anything but your permanent address. To do otherwise leads to confusion, unless you desire your address changed. In that case state the old as well as the new address.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Dec. 4-6.—International, at Brantford, Ont., Canada. R. F. Holtermann, Sec., Romney, Ont.

Dec. 16, 17.—Northern Illinois, at Rockford, Ills. D. A. Fuller, Sec., Cherry Valley, Ills.

1890.

May 2.—Susquehanna Co., at Hopbottom, Pa. H. M. Secley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Golden-Rod in Louisana.

The golden-rod, which has been, and is, in full bloom in all the fields around us, for the past few years devoted to the cultivation of rice, has been full of bees for the past month; there seems to be much nectar in it. Heretofore our bees have stored no honey from the plant, that we know of—I have never known the bees to work upon it until this season. There has been a very unusual yield of honey this fall—from two to three gallons to the hive have been stored by good colonies, since the last extracting in June. MRS. I. B. FOX.

Jesuit's Bend, La., Nov. 8, 1889.

Pleased with the Results, etc.

I have always been a lover of bees and honey, and never could get enough of it until this season, which was the best I ever had, both as to honey and increase. I had 20 colonies, spring count, and now have 50 strong colonies, and took 2,000 pounds of comb honey, the best colony storing 130 pounds, and from that down to 5 pounds, and even 2 colonies produced nothing. This proves that bees are just like men—some prosper, while others are drone-like. My experience in wintering bees is, that it is best in the cellar, in a dark corner, with outside ventilation. I do not know anything about golden-rod here, but what we call sweet clover is getting abundant along the roadside, which is good bee-food. The AMERICAN BEE JOURNAL is what every bee-keeper ought to take and read.

H. DIERDORFF.

Franklin Grove, Ills., Nov. 8, 1889.

Drone and Queen Traps.

Mr. Edsall, on page 651, states that he placed an Alley drone-trap on a hive, and that the swarm left, and then he asks "why?"

Mr. Alley's answer (page 707) may be the correct solution, but I suspect not. All drone and queen traps depend for their utility upon perforations in metal plate. These perforations, in order to allow as much room for workers to pass as possible, are so large that a very small queen can pass through them.

Now bees attempt to swarm with the trap on the hive, just the same as if there were none on, and they usually cluster just the same, and return just the same as other swarms without a queen so often return. This will be continued from day to day, until some small queen hatches that can pass through the metal when they swarm, having a queen with them, will go off as they would if no trap were used. The bees do not destroy the young queens under this treatment for some 3 or 4 days or more, and not until they are wholly discouraged about getting away, when they will kill all but one, and settle down for work.

Sometimes several young queens may be seen in a good trap at once, and there is a good opportunity to study their habits with relation to each other, and their treatment by the bees. The largest and best queens usually are the most quiet, and pay but little attention to anything that is going on, save to escape from the trap; but the smaller ones frisk about more, or sometimes hump up their backs and stand there, piping. They are, I think, the only ones which would be likely to attack and kill a rival queen. W. M. WOODWARD.

Bonfield, Ills.

Shipping Queens by Mail.

I have just read, on page 715, Chas. Dadant & Son's response to my article in a former issue. I was not aware that Mr. Dadant had given to other parties the honor due to Rev. L. L. Langstroth and myself. Mr. Langstroth shipped queens by mail before either Mr. Townley or Mr. Alley did—then why did Messrs. Dadant erroneously mention that certain parties were entitled to credit for priority? They charge me with "ire," but I am not conscious of manifesting ire toward Mr. Langstroth; certainly I have not shown ire toward Messrs. Dadant, and their bestowal of it upon me, is strictly gratuitous from a large fund. C. J. ROBINSON.

Richfield, N. Y.

Blue Lettuce as a Honey-Plant.

1. Please give the name of the enclosed flower. It grows very sparingly in the fields around here, and blooms from about Sept. 1 until about the middle of November. Bees work on it in preference to golden-rod. 2. Does it yield honey?

The fall crop of honey was a total failure here, although golden-rod bloomed profusely, also many other fall flowers. Bees do not work on golden-rod much, and I think that it yields but very little honey. We do not have any trouble in wintering our bees, if we leave them plenty of honey, and keep moths and other insects out. The AMERICAN BEE JOURNAL is prized very highly, and is a welcome weekly visitor. I think that all bee-keepers ought to take it.

W. R. TATE.

Durant, Miss., Nov. 6, 1889.

[The plant is a species of blue lettuce (*Mulgedium floridanum*). In all probability it yields honey like the rest of the great composite family to which it belongs. —CLARENCE M. WEED.]

Packing Bees for Winter.

I am very much pleased with the AMERICAN BEE JOURNAL, and I would not do without it as long as my bees help me to make a dollar. Mr. Doolittle's way of introducing queens is a good one; it is done with a great deal less loss than any other.

I got one colony of bees on April 1, 1885, and it gave me 3 swarms the first year; I now have 56 colonies, weighing from 55 to 79 pounds per colony. I took off 1,050 pounds of comb honey, and 54 pounds of extracted. I am selling my comb honey at 16 to 18 cents per pound. I have the pure Italian bees, and know but little about other races of bees. I winter my bees out-of-doors, making boxes over the hives for some, 12 inches wider than the hives, so that I can fill in 6 inches all around the hives with chaff, and a cushion on top. Some I place 6 to 8 or more in a row, drive a few stakes, and board up back and in front of the hives high enough so that I can cover them handily, and fill up with chaff the same as done with the others. So far both methods have proven successful. I prefer clover chaff for packing, and generally pack the bees about Nov. 20, or the last of that month, as the weather and time permits, for I have 115 acres of land, and, with the bees, I am kept hustling, as I do the most of the work myself. I am very careful, however, not to neglect my bees, for I appreciate them highly. I am well pleased with my success in bee-keeping. My bees are not only good workers, but they are very gentle. J. C. BECHTOLD.

Bippus, Ind., Nov. 12, 1889.

Rearing Bees for the Winter.

I have several colonies of bees that hatched out all of their brood by Sept. 20. Will they live through the winter, so as to breed up next spring? Some of my neighbor's bees are in the same condition. The fall honey crop was a failure here, on account of drouth. My crop was 1,400 pounds of comb honey from 15 colonies, spring count, besides increasing to 45 colonies. N. C. ANDERSON.

Knoxville, Ills.

[Oh, yes; it is better to have bees bred later, but if they have enough honey, and are not affected by other detrimental causes, they will be quite likely to winter well.—ED.]

Hiving Bees in California.

I hived a swarm of bees here week before last; they had no place to settle, and were creating a disturbance out in the road. A team drove through them with a terrified driver, but the horses were not stung. I held up a five gallon coal-oil can, and they soon settled. I dumped them into a cheese box, and put them back of the grocery-store, and they are now contributing their daily quota to the throngs of Italians buzzing around the raisin-packers. All the bees that I have seen here, are large, yellow Italians. The stock was introduced years ago by Mr. Harbison.

A friend of mine told me that a swarm settled on a peach-tree last August; and last week, when they plowed the orchard after the rain, one of the boys brought in a pail-ful of comb honey, which he had knocked off the limb. Bees require so little attention that very few bee-keepers here know anything about them. An old rancher looked on in astonishment the other day, while the bees were settling on the coal-oil can. He said that he had kept bees for 20 years, but never had yet been able to find out how to "herd 'em" like that.

J. L. WOOLFOLK.

El Cajon, Calif., Oct. 28, 1889.

Aster and Golden-Rod Honey.

I send you the two varieties of a plant that grows here, and a sample of the honey that they produce. Please to give their name. You will see that about all the difference is in the color of the bloom—the one white, and the other purple. Here they grow in a light, loamy soil, and they would be some of our best honey-plants if they would bloom in July, instead of October and November; but they bloom so late in the season, when bees have but few days that they can leave the hives. The honey from the plants is capped as white as linden honey, and has a beautiful appearance; but there is one great fault about this honey—it candies as soon as stored in the comb, and it is impossible to extract it from unfinished sections.

I think that bee-keepers cannot prize golden-rod too much in this locality. We have five different varieties growing here, and they are our main dependence for winter stores, and in some years they furnish most of our surplus honey. I also send a sample of golden-rod honey. How does this compare with golden-rod honey that has come to your notice?

This season there was no surplus honey stored before Aug. 20, when the best honey-flow commenced that I ever saw, and lasted until Sept. 17. From 43 colonies, my surplus was about 700 pounds of comb honey, and 500 pounds of extracted. Bees in this neighborhood are in good condition for winter. F. J. KRUMM.

Pleasant Bend, O., Nov. 7, 1889.

[The plants sent belong to the numerous family of asters, all of them being excellent honey-producers, and if they bloomed in July instead of in the Fall, they would be of great value for their honey.

The golden-rod honey compares favorably with other samples sent to this office.—ED.]

Fine Rains for White Clover.

We are having fine rains, which are good for the white clover. I will soon send my report in full. I think that I can "show" with any of them, and it is not far from what I thought it would be.

JOHN BLODGET.

Empire, Mo., Nov. 7, 1889.

Bee-Keeping in Iowa.

The past season was a very poor one in this part of Iowa, which includes the whole western portion of the State, but toward the southern line of the State, I think that the yield is better, with large yields in the central and eastern parts of the State. Last spring I put out of the cellar 50 colonies, without any loss in wintering, but several colonies proved to be queenless; I think this was caused mostly after they were put out—possibly I made some mistake in cleaning them out. I sent to the South and procured queens in April, and they did well. I got one queen from Georgia, that did exceedingly well. I think that it pays to get queens, under such circumstances, from our Southern apiarists.

My yield the past season was only about 25 pounds per colony, with an increase of 20 colonies, all in good condition for winter. The weather is warm, and the bees are flying as in summer. Our small yield in this section was not caused for lack of bloom particularly, but more from atmospheric conditions. I have never taken less than 70, or more than 150 pounds, on the average, in six years, until the past season, and I feel a little on the "cheap order" now. I am not an enthusiastic admirer of the golden-rod. EZRA J. CRONKLETON.

Dunlap, Iowa, Nov. 11, 1889.

Poisoning the Bees.

I think that the "Honey Almanac" is a grand thing. I would be pleased to do more for the Bee-Keepers' Defense Fund, but I feel unable to do so, for the following reasons: During the honey harvest my bees were poisoned to such an extent that I did not take one pound of honey. I think that if they had not been poisoned, I would have had a harvest of eight or ten thousand pounds of comb honey, as we had, in this locality, an exceptionally good season. I had only 3 swarms, and these came out early, before the poisoning commenced. My number, spring count, was 91 colonies, all in splendid condition. Others may yet suffer as I have. I do not expect to have the nefarious work repeated on me, for it has been denounced in such strong terms by all parties in this vicinity, that those who did the mischief would rather the circumstantial evidence was not so strong as it is. I have consulted legal authority, but I am advised, as the evidence is only circumstantial, to not undertake to prosecute. There will be no action brought, and the Union will not have any expense in this case; but if they injure me so badly again, I will assume the expense then.

San Jose, Calif. MOSES BRAY.

Experience of the Season.

I started in the spring with 12 colonies of bees, and some were very weak. I increased them to 19 colonies, and prevented swarming as much as possible. I took about 400 pounds of honey, mostly extracted, only about one-half crop, and have rendered about 30 pounds of beeswax. I have reduced my bees to 6 colonies, as I am going to move to Columbus, O., this week.

J. A. RICKENBACHER.

Gahanna, O., Nov. 4, 1889.

International Bee-Association.

The programme for the American International Bee-Association, which is to meet at Brantford, Ontario, Canada, Dec. 4 to 6, next, is not yet complete. However from the following it will be seen that every effort has been made to have a good one. The first session will be at 2 p.m. of the 4th.

Bee-Keeping an Occupation for Women—Miss H. F. Buller, Campbellford, Ont.

Cellar *vs.* Out-Door Wintering—R. McKnight, Owen Sound, Ont.

Shipping Queens—F. H. Macpherson, Beeton, Ont.

Disposal of the Honey Crop—Thomas G. Newman, Chicago, Ills.

Cellar Wintering—S. T. Pettit, Belmont, Ont.

Riding Hobby-Horses—Bee-keeping a recreation from other pursuits, and an antidote for disease—E. R. Root, Medina, O.

Alimentary System or Apparatus of the Honey-Bee—Prof. A. J. Cook, Agricultural College, Mich.

S. Corneil, Lindsay, Ont.—Subject not given.

The President will give his annual address which, doubtless, will be amusing and instructive.

Reduced rates, at least one and one-third fare for return trip, may be secured on the Grand Trunk and Canadian Pacific railway; the latter tickets must be purchased to and from Galt or Woodstock. For further particulars, apply to the Secretary.

Remember you must have a certificate when purchasing your ticket for Brantford on the Grand Trunk railway, or Galt or Woodstock on the Canadian Pacific railway.

Reduced hotel rates ($1.50) may be secured at the Kirby House. The Commercial Hotel also, close to the place of meeting, is a good one-dollar house.

R. F. HOLTERMANN, *Sec.*

The Farm Journal, Philadelphia, Pa., has the largest circulation of any agricultural periodical in the world—150,000. It is now in its 13th volume, and is a good, practical Monthly. We can offer the *Farm Journal* and either the AMERICAN BEE JOURNAL or the ILLUSTRATED HOME JOURNAL from now until Dec. 31, 1890, for $1.20.

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Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

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Please write *American Bee Journal* on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in Cheshire's pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting *new subscribers* to send with your renewal, we make you this offer. For each yearly subscriber, with $1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a **premium.**

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	Price of both.	*Club*
The American Bee Journal	1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	1 50	1 40
The Apiculturist	1 75	1 65
Bee-Keepers' Advance	1 50	1 40
Canadian Bee Journal	2 00	1 80
Canadian Honey Producer	1 40	1 30
The 8 above-named papers	5 65	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (1887 **edition**)	2 25	2 00
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 75	1 50
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
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History of National Society	1 50	1 25
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Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable enthusiasm for investigation. Price, by mail, 80 cents; or the AMERICAN BEE JOURNAL for one year, and the Magnifier, for $1.50.

A Handsome Present.—As the convention season is now on hand, we will make every subscriber this good offer: Go and call on your neighbor who keeps bees and ought to take the BEE JOURNAL. Get his subscription and one dollar for a year; send it to us, and we will *present* you a copy of the Convention Hand-Book, by mail, postpaid, for your trouble. Here is a grand chance for all to get a valuable book without costing them a cent!

Every Hand-Book contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with subjects for discussion. They sell at 50 cents each, and are nicely bound in cloth covers.

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it

Honey and Beeswax Market.

DETROIT.

HONEY.—Demand is fair for comb at 13@15c. per lb. There is more dark honey than light. Extracted, 8@9c.
BEESWAX.—24@25c.
Nov. 11. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—Receipts of comb are averaging about as they usually do with a fair crop. Prices rule at 13@14c. for choice to fancy 1-lbs., which comprise the bulk of the receipts, very little in sections averaging 1½@2 lbs., and sells at 10@12c¾; dark, 8@10c. Extracted, 6@8c.
BEESWAX.—25c. R. A. BURNETT.
Nov. 8. 161 South Water St.

KANSAS CITY.

HONEY.—Fancy white 1-lbs., 14c.; good, 13c.; dark 11c.; white 2-lbs., 13c. Extracted, white, 7c.; dark, 6c. Demand good.
Nov. 11. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—1-lb. comb, 15@18c. Extracted, 7@8c.
BEESWAX.—20@25c.
Nov. 11. J. M. CLARK COM. CO., 1421 15th St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 14@15c.; 2nd grade white 1-lbs., 13@14c.; old dark 1-lbs., 10c.; new, 10@11c. Extracted, white, in barrels and kegs, 7@8c.; in tins and pails, 8@8½c.; dark, in barrels, 6@6½c.; in kegs, 6@7c. Demand steady.
BEESWAX.—22@23c.
Nov. 11. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—Extracted, white clover, basswood, orange blossom and California, 8c.; buckwheat, 6 cts.; common Southern, 65@70c. per gallon. Demand is good. Comb boney, fancy white 1-lbs, 16c.; 2-lbs., 14c. Fair 1-lbs., 14c; 2-lbs., 11@12c. Buckwheat, 1-lbs., 11@12c.; 2-lbs., 10@11c. Demand very good for fancy white 1-lbs., and buckwheat 1-lbs.
BEESWAX.—22c.
Oct. 2. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—Demand for white clover 1-lbs. is improving, but price depends upon size and style of package, condition and appearance when received, ranging from 12@13½c.; basswood, 11@11½c.; buckwheat, 8@10c. Extracted, 6½@7½c., depending upon style and size of package.
BEESWAX.—27@28c.
Nov. 9. S. T. FISH & CO., 189 S. Water St.

NEW YORK.

HONEY.—Demand fair. Western honey arriving freely, and prices declining. We quote: Fancy white 1-lbs., 14@15c.; 2-lbs., 12@13c.; off grades and mixed 10@12c.; buckwheat 1-lbs., 10@11c.; 2-lbs., 9c. Extracted white clover and basswood, 7½c.; orange bloom, 8½c.; California, 7½c.; buckwheat, 6 cents; Southern, 70@75c. per gallon.
HILDRETH BROS. & SEGELKEN,
Nov. 6. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote: Fancy 1-lbs., 16@17c.; fair, 14@15c.; 2-lbs., 15@16c. Extracted, 8@9c. Market is in fairly good condition, but we are getting some of the odd grades from Western New York, Michigan and Wisconsin, and it is not arriving in very good condition, making it hard to sell.
BEESWAX.—None on hand.
Oct. 21. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—A quiet but steady demand for choice comb, at 14@16c. Fair demand for extracted at 5@8c
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Nov. 9. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—Receipts are very light, and demand is increasing. We quote: White 1-lbs, 13@14c.; dark, 10@12c.; white 2-lbs, 12@13c.; dark, 10@12c. Extracted, white, 7@8c.; dark, 6c.
BEESWAX.—None in market.
Oct. 12. CLEMONS, CLOON & CO., cor 4th & Walnut.

Convention Notices.

☞ The Northern Illinois Bee-Keepers' Association will hold its annual meeting in the Supervisors' Room of the Court House, at Rockford, Ills., on Dec. 16 and 17, 1889. D. A. FULLER, *Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Romney, Ont., Canada.

Doolittle on Queen-Rearing.

Queens can be reared in the upper stories of hives used for extracted honey, where a queen-excluding honey-board is used, which are as good, if not superior, to Queens reared by any other process; and that, too, while the old Queen is doing duty below, just the same as though Queens were not being reared above. This is a fact, though it is not generally known.

If you desire to know how this can be done—how to have Queens fertilized in upper stories, while the old Queen is laying below—how you may *safely introduce* any Queen, at any time of the year when bees can fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing;" a book of 170 pages, which is nicely bound in cloth, and as interesting as any story. Price, $1.00.

An edition in strong paper covers is issued for premiums. It will be mailed as a present to any one who will send us *two* new subscribers to either of our JOURNALS.

A New Premium.

The National Purchasing Co. of this city issue a Membership Ticket good for the year 1890, for the sum of one dollar. This Ticket is not transferable, and entitles the holder to all discounts that the Agency can secure on goods that may be ordered, and they are in a position to obtain more or less discount on every order received.

By a special arrangement with the Manager, Mr. C. L. Seavey, we are enabled to make this remarkable offer: We will forward a Membership Ticket for 1890 to any one sending us two new subscribers for the AMERICAN BEE JOURNAL or ILLUSTRATED HOME JOURNAL for one year with $2.00. This offer is good only until Dec. 31, 1889.

Essays on Extracted Honey.

We offer Cash PRIZES for the best essays on "Extracted Honey," each essay not to exceed 2,000 words in length, and must be received at this office before Jan. 1, 1890. The first prize is $5.00; the second, $3.00; and the third, $2.00. All essays received on this offer will become the property of the AMERICAN BEE JOURNAL, and is open for competition to its subscribers only.

☞ We want 8 numbers of the BEE JOURNAL, viz: December, 1875, January to June, 1876, and April 30, 1881. If any one who has them will sell them, he will please write us a postal card and state price. Do not send any numbers until we order them, for we only want one copy of each.

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12A1y **H. H. RUETER,** Baxter Springs, Kan.

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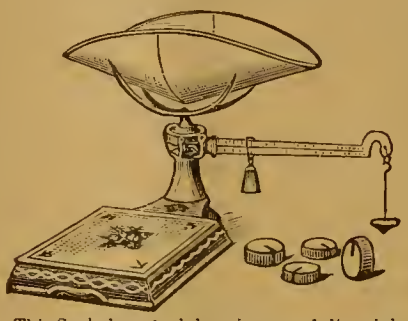
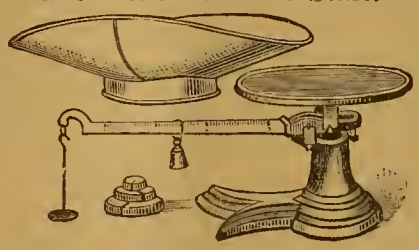


This Scale has steel bearings, and it weighs from ½-ounce to 240 pounds. Price, with a Single Brass Beam, as shown in the illustration, $3.00. With Double Beam for taking the tare, $3.50.

The Little Detective Scale.



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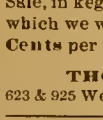

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Honey Almanac for 1890.

JUST **the thing** needed to create a **demand** for HONEY at home. Bee-keepers should scatter it freely. It shows the uses of Honey for Medicine, Eating, Drinking, Cooking, for making Cosmetics, Vinegar, etc.; also uses of BEESWAX. Price, 5 cts.; 100 for $2.50 ; 500 for $10.00 ; 1,000 for $15.00. The Bee-Keeper's CARD will be printed on the first page without extra cost, when 100 or more are ordered at one time. Address,

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DES MOINES, IOWA.

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Nov. 30, 1889. No. 48.

EDITORIAL BUZZINGS.

☞ In going to the International Convention from the United States, the Grand Trunk railway is the best to take, as that runs to Brantford without change.

☞ Our Premium List, consisting of 8 pages of uniform size with this JOURNAL, will be issued and sent with the next number. We have many *new* Premium offers, and hope our readers will prepare in advance to devote a few days in getting up clubs for our Journals. All the Premiums apply alike to both of our periodials, and all clubs may have subscriptions for either or both Journals, as may be desired.

☞ The *Canadian Honey Producer* will cease to exist after issuing the December number. The chief cause is the removal of the editor to another field of labor. His announcement concludes thus:

To the public generally we may say, that the *Canadian Honey Producer* is self-sustaining; and every prospect that its subscription list would increase. Yet, as before stated, there are difficulties in the way which would not be easy to surmount. We trust no one will attempt to publish a new bee-paper. There are enough good ones at the present day, and but little room for more.....

In closing we would here say, we consider we have kept faith with our readers; doubtless we have made mistakes, yet we have made it our aim to publish the *Canadian Honey Producer* in the interest of our readers, therefore any mistakes made we trust will be considered as made unknowingly, and hence all the more readily pardonable. Do not let us be misunderstood—whenever we have seen clearly that we have erred, we have never flinched from correcting the statements made.

Clubs of 5 for $4.00, to any addresses. Ten for $7.50, if all are sent at one time.

Bee and Honey Exhibit.

Some time ago it was suggested that a grand Apiarian Exhibit should be made at the World's Fair in 1892. *Gleanings* suggested that Dr. A. B. Mason should be charged with the work of procuring such an exhibit. The AMERICAN BEE JOURNAL promptly seconded that motion, as did also Prof. Cook. The Doctor's reply through *Gleanings* is as follows:

I have *thought* a good deal in regard to the fizzle of the apiarian exhibit from the United States at Paris, and had come to the conclusion in my own mind that we *must* make the grandest display, or exhibit, of the bee-industry at the World's Exposition in this country in 1892 (wherever it may be held), that was ever made in the world; and to do this we must begin in time. With that in mind, and thinking that, as President of our national association, I might properly be considered the representative of American bee-keepers, I wrote those in charge of the proposed exposition in Chicago, and also to the Mayor of New York, suggesting that, when the proper time arrives for arranging matters, we be given the proper inducements and space to make such an exhibit as will be a credit to us and an honor to the country.

The president of the Chicago organization replied, saying, "The suggestion you make is a good one, and will be laid before the proper authority for such action as may be required, should the fair be located, as we expect, in Chicago."

I have not yet heard from New York, and shall write to Washington as soon as I learn the name of some one engaged in trying to get the exposition located there, so as to be on hand at whichever place it may be located.

I expect to say something about it in the President's annual address at the convention at Brantford. It may, to some, seem a little early to "set the ball rolling;" but if we wait till next year we may be too late; for just as soon as Congress settles the matter of location, the plan of the exposition will at once be laid out; and unless we are on hand, we shall get left out.

Auburndale, O. A. B. MASON.

That is eminently proper, Doctor. You have done just right in "setting the ball rolling" thus early—for when Congress decides upon the location, you will then have driven your stakes.

This work, done as the "President of the International," shows that we have "the right man in the right place," and he should be re-elected, if he will take the *honor* as payment for his very efficient services during 1889. He will then be able to "speak as one having authority," when corresponding with the World's Fair committee.

An Attractive Display.

From an Alabama paper we extract the following concerning an attractive exhibit of honey at the fair:

One of the most attractive displays of the Southern Exhibition was that of the Clovernook Apiary, Judge W. H. Black, proprietor. He showed bees in glass hives, a house built of large sections of comb honey, about 20 varieties of extracted honey. All kinds of fruit put up in honey. Large variety of fruits and vegetables pickled in his honey vinegar. All kinds of apiarian supplies from feeders to extractors.

Honey Jumbles and Lemonade.

The following from the *Canadian Bee Journal* concerning the above, at the late Detroit International Exhibition, will be of interest to our readers:

What our American friends call "Honey Jumbles," sold at an astonishing rate, as many as thirty boxes being disposed of in one day. A pointer which we gave those who sold these jumbles, and which will probably be taken advantage of another year, was to have a supply of honey lemonade as well; the venders would do a thriving business, and, as well as advertise honey in another way, they would make much money.

There were numerous stands through the main building where nothing but lemonade was sold, and a thriving business was carried on.

For ourselves, we lunched on honey jumbles and lemonade, and we do not believe a dozen waiters would be able to attend to the wants of the public, if they knew that they could get a nice, clean lunch with something to wash it down, all at the honey counter.

☞ Here is something rich and racy from the *Western Apiarian* of this month:

The effete stomachs of this generation do not relish honey. In the days when men had physiques, and women were Dianas, honey was an acceptable food. Milk and honey made a concord ordained by Nature. Honey is pure; it is nutritious; it is rich. No perverting cook intervenes to spoil it. Fresh from Nature's hand it comes to us, served in the natural comb which surpasses china in its delicacy, and of a consistency and color unattained by any wiue.

Winter Care of Bees.

There is but little opportunity during the wiuter to give bees attention, and the proper time to put them in shape is during the autumn months. Feeding should all be done before cold weather sets in, and they should be settled in their winter quarters before real winter is at hand. It often occurs that winter overtakes some persons with colonies that lack food. In such cases they cannot possibly use syrup for food, as the weather is too cold for the bees to seal it over, and unsealed stores will not serve properly for winter. The moisture which always arises from the bees in cold weather enters the unsealed honey and dilutes it, making it very unwholesome.

The only resort, therefore, for feeding in cold weather, is to make candy and use it. This is a very good and healthful food if properly made and administered. It is made from granulated sugar by melting it, adding a little water—no more than will thoroughly melt the sugar—when it is boiled a few minutes and poured out into cakes or slates of three or four pounds each. When cool, this becomes very hard, almost like rock candy.

In feeding this it is placed on frames just over the cluster of bees, where they can have access to it at all times. When in this position it recieves the heat arising from the bees, and they remain on it all the time. It is so hard that it will last them a long while. This candy may be given to bees at intervals during the winter, and colonies may be brought through in good condition that would have otherwise perished.

This, or any other work, that is necessary to do with bees wintering on the summer stands, should be done on warm days. It will not do to molest them on a cold day, but it should always be done on days when the bees are flying.—*American Agriculturist for December.*

International Bee-Association.

The programme for the American International Bee-Association, which is to meet at Brantford, Ontario, Canada, Dec. 4 to 6, 1889, at Wycliffe Hall, near Kirby Hotel, is as follows:

First Session, 1:30 p. m., Dec. 4.

Call to order by the President, Dr. A. B. Mason, Auburndale, Ohio.
Calling the Roll of Officers and Members.
Reception of New Members and Collection of Annual Dues.
Secretary's Report.
Treasurer's Report.
Report of Standing Committee.
Question Drawer.

Second Session, 7:30 p.m., Dec. 4.

Addresses of Welcome and Responses.
President's Address.
Election of Officers.
Selection of time and place for holding the next Convention.
Miscellaneous Business.

Third Session, 8:30 a.m., Dec. 5.

Bee-Keeping an Occupation for Women—Miss H. F. Buller, Campbellford, Ont.
Cellar *vs.* Out-Door Wintering—R. McKnight, Owen Sound, Ont.
Question Drawer.

Fourth Session, 1:30 p.m., Dec. 5.

Shipping Queens—F. H. Macpherson, Beeton, Ont.
Disposal of the Honey Crop—Thomas G. Newman, Chicago, Ills.
Question Drawer.

Fifth Session, 7:30 p.m., Dec. 5.

Cellar Wintering—S. T. Pettit, Belmont, Ont.
Riding Hobby-Horses—Bee-keeping a recreation from other pursuits, and an antidote for disease—E. R. Root, Medina, O.
Question Drawer.

Sixth Session, 8:30 a.m., Dec. 6.

Warm Hives—How best Attained—S. Corneil, Lindsay, Ont.
Question Drawer.

Seventh Session, 1:30 p.m., Dec. 6.

Alimentary System or Apparatus of the Honey-Bee—Prof. A. J. Cook, Agricultural College, Mich.
Question Drawer.

Eighth Session, 7:30 p.m., Dec. 6.

Question Drawer.
Installation of Officers.
Adjournment.

Reduced rates, at one-and-one-third fare for the round trip, may be secured on the Grand Trunk and Canadian Pacific Railway, in Canada only. The Canadian Pacific Railway does not run into Brantford, and tickets on that road must be purchased to and from Galt or Woodstock, as these are the nearest points, and for these points only can the round-trip tickets be obtained. Those who intend to go to the Convention should write to me at once. Those from the United States should take the Grand Trunk R'y.

Remember you must have a certificate when purchasing your ticket for Brantford on the Grand Trunk railway, or Galt or Woodstock on the Canadian Pacific R'y.

The Kirby House, $2.00 per day, will take members at $1.50 per day. The Commercial, a $1.00 per day house, will board members for 75 cents per day. Both are close to Wycliffe Hall.

The Executive Committee will take up the Question Drawer, and submit to the Convention such questions as they deem of sufficient general interest and importance. The balance will be submitted to a committee to answer, and questions and replies will be read by the Secretary.

R. F. HOLTERMANN, *Sec.*

Honey Almanac.

This Honey Almanac places in the hands of bee-keepers a powerful lever to revolutionize public sentiment, and create a market for honey, by making a demand for it in every locality in America.

Each alternate page is an illustrated calendar for the month—making a complete Almanac for the year 1890.

Here is what is said of it by those who have seen the Honey Almanac :

I have just found time to look over the Honey Almanac, and I consider it very valuable, full of good recipes and information. It certainly will be a good medium through which to dispose of a honey crop, as well as a good advertisement for the apiarist.—Frank A. Eaton, Bluffton, O.

The Honey Almanacs are received. They are indeed well gotten up, and I think they will help a great deal in the sale of honey. Our Southern California friends should avail themselves of this opportunity, of advertising honey. The first Almanac I gave away, got me quite an order for extracted honey.—S. L. Watkins, Placerville, Calif.

The Almanacs are received. They will sell tons of honey, if judiciously distributed. If you keep it up a few years, extracted honey will be wanted as much as that in the comb. You may justly be proud of the job, artistically considered. They are chock-full of good things. Now if the bee-keepers will take hold, as they ought, the effort will be crowned with success.—H. O. Kruschke, Deuster, Wis.

Your Honey Almanac is just received. What do I think of it? Why, that it will become our most valuable auxiliary in the disposal of our surplus honey; and especially am I pleased with your last page, and with your perfect and most truthful description of comb and extracted honey. Now, after this, should the wise ones be deceived as to the purity of honey, they deserve to be fed on glucose and patent comb honey (!) for the balance of their lives. —Wm. S. Barclay, Beaver, Pa.

I have just received my quota of the Honey Almanacs. They are nice, indeed. I expected something good, and I am more than satisfied. They are certainly what we have been looking for to build up the honey trade, by increasing the demand for honey. Every bee-man that has honey to sell ought to have some for distribution. My honey crop will be over 9,000 pounds of extracted from 135 colonies, spring count. I have not taken it all away from the bees yet. We had our first killing frost last night.—A. C. Aten, Round Rock, Texas.

I have examined the Honey Almanac. Were I in the business of producing honey for the market, and had the least difficulty in disposing of the product, I do not believe I could find a better plan of advertising the same, than by scattering these Almanacs broadcast in my vicinity. Advertising, as a rule, needs but little more than a statement of the goods for sale. Honey stands on a different basis. The millions do not as yet know its virtue or value, and the "Almanac," it strikes me, would prove a happy medium by which to let the public know it.—J. E. Pond, North Attleboro, Mass.

Its 32 pages are filled with interesting facts, figures and suggestions concerning the uses of Honey for Food, Beverages, Cooking, Medicines, Cosmetics, Vinegar, etc. Also, its effects on the human system are tersely noted; a brief refutation is given of the Wiley lie about manufactured comb honey; a short dissertation sets forth the mission of bees in fertilizing the flowers, and increasing the fruit product. Instead of being an injury to fruit, bees are the fruit-growers' best friends.

Beeswax, its uses, how to render it, and its importance as a commercial product, is described, and 17 useful Recipes are given.

Prices: $2.50 per 100; 500 copies for $10.00; 1,000 copies for $15.00, delivered at the freight or express office here. The bee-keeper's Card will be printed upon the first page, without extra cost, when 100 or more are ordered at one time. Postage, 40 cents per 100 extra. All orders can now be filled as soon as received.

☞ Dr. A. B. Mason gives the National Bee-Keepers' Union the following notice in the *Bee-Keepers' Review:*

At first thought, to some, the Bee-Keepers' Union is an unnecessary organization. I have heard it said by bee-keepers that they didn't propose to give their money to help pay the expenses of some one else's lawsuits. Such certainly do not understand the object of the Union, or else are exceedingly selfish. Its object is not to defend *persons* but *principles*, in which what affects one bee-keeper affects all others, and I believe as at present conducted, the Union ought to have the unanimous support of all bee-keepers.

Yes, "it is not persons but *principles*" which the Union defends. If it were not so, the present Manager would have nothing to do with it.

☞ Frank Leslie's *Popular Monthly* for December, just out, is the Christmas number, and occupies the field in advance of all its contemporaries. It has a special illuminated cover, wreathed in holly-leaves and berries. The table of contents is rich and seasonable, and the magazine is as full of pictures as a pudding of plums. An exquisite colored plate, entitled "Under the the Mistletoe," forms an appropriate frontispiece.

Convention Notices.

☞ The annual meeting of the Vermont State Bee-Keepers' Association will be held at Burlington, Vt., on Jan. 22, 1890. J. H. LARRABEE, *Sec.*

☞ The Northern Illinois Bee-Keepers' Association will hold its annual meeting in the Supervisors' Room of the Court House, at Rockford, Ills., on Dec. 16 and 17, 1889. D. A. FULLER, *Sec.*

☞ The 24th annual meeting of the Michigan State Bee-Keepers' Association, will be held at Lansing, Mich., in the Capitol Building, on Dec. 26 and 27, 1889. At that time nearly all railroads sell half fare tickets; a few railroads charge one-and-one-third fare for the round trip. Reduced hotel rates will be given at the Hudson House. All are cordially invited. H. D. CUTTING, *Sec.*

☞ The bee-keepers of Huron and Tuscola Counties will hold a joint meeting on Dec. 16, 1889, in the Union House, Concordia Hall, at Sebewaing, Huron Co., Mich. All interested are cordially invited to attend, and make this, the first meeting, a great success. There will be topics of interest to all discussed. JOHN G. KNUDINGER, *Cor. Sec.*

☞ The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding $1.00 to the Secretary.—R. F. HOLTERMANN, Sec., Romney, Ont., Canada.

Worship in the Woods.

Written for the American Bee Journal

BY E. H. DIEHL.

Long ages since, when Time was young,
Ere prophets spoke or poets sung,
Ere man had used the line or plumb,
Or heard the martial fife and drum,
God's temples were the shaded woods,
Where met the pious multitudes.

A countless age has wheeled its flight,
And brought new stars and worlds to sight;
Primeval man of humble state
Assumes a place now with the great;
Yet God still in the forest moves,
Because His temples are the groves.

How sacred were those vast retreats
Where worshipper his Savior meets!
With tears, and sighs, and heart-felt groans,
Saints from their hovels, and from thrones,
Implored Jehovah from above,
To pity, pardon, save and love.

With folded hands the people stood
In silent prayer—blest attitude!
Or sitting on the verdant ground,
Engaged in solemn thoughts, profound;
Or rendered praises to their King,
In anthems such as angels sing.

Blasphemers entered not that wild!
With oaths its haunts were not defiled;
Low drunkards ne'er enjoyed a breeze
That played among those holy trees;
But humbly every man and youth
Assembled, seeking grace and truth.

Whene'er we see the cooling shade
Of trees in mountain, glen, or glade,
Let all esteem the forests dear—
Their grandeur and their use revere;
Adore them for their memory past—
Adore them, long as time shall last.

Leesburg, Ills.

QUERIES and REPLIES.

Coverings for Brood-Chambers in the Cellar.

Written for the American Bee Journal

Query 671.—What is the best covering for the brood-chamber, when the bees are wintered in a warm cellar, at a temperature of 45° to 50°, Fahr.?—Wis.

A wooden cover.—C. H. DIBBERN.

I would use burlap.—J. P. H. BROWN.

The hive-cover, to be sure.—R. L. TAYLOR.

Some old carpeting, or a bee-quilt.—G. M. DOOLITLTE.

I do not know. I do not winter my bees in a cellar.—M. MAHIN.

A piece of carpet or any porous cloth. See my answer to Query 669.—G. W. DEMAREE.

A straw mat, or a cloth, not close fitting. —DADANT & SON.

A tray of timothy or wheat chaff 2 inches deep, is hard to beat.—G L. TINKER.

I am not sure, but I would prefer hard-maple leaves as an absorbent.—J. M. HAMBAUGH.

A board or porous cloth. I think that the cover is of very little moment; though I do not like oil-cloth.—A. J. COOK.

A *porous* covering of any kind is "the thing needful." My practice is to use common sacking.—WILL M. BARNUM.

Whatever they had out-doors. Most of mine have nothing but the regular hive covers, which are made of ⅞-inch boards.—C. C. MILLER.

I think that the temperature (45 to 50 degrees) is too high; 38 to 40 degrees is warm enough in any cellar. I prefer enameled cloth to anything I have used, but I want it well covered to keep it warm.—H. D. CUTTING.

I would cover first, with Indian-head muslin, kept up with Hill's device, and then with old woolen carpets, worn underwear, or anything else convenient; top the hives with chaff cushions.—MRS. L. HARRISON.

I think that it makes but little difference. I have tried a good many different methods, and I find it just as well to leave the cover on which they had in the summer.—EUGENE SECOR.

I prefer none at all. If mice are bad, use wire-cloth for covers; and if the hives are to be *stacked*, lay the covers on small nails, so that there will be about ⅛ of an inch space between the cover board and the hive.—J. M. SHUCK.

I have tried almost everything conceivable, and found no difference. Now, I leave the cover glued fast, just as the hives come from the yard—because it is the cheapest.—JAMES HEDDON.

I do not think that any covering is needed if the cellar is dark; but any covering handy can be used—either a tight board, or a burlap quilt. I am speaking now of just the temperature you describe. Give ample room at the entrances.—J. E. POND.

I do not know. If the cellar is dry, anything that will keep in the heat will do; if damp, something that will retain the heat, and let the moisture escape, will be best. My bees wintered splendidly last winter in a cellar with the temperature at 50 degrees most of the time, with the same quilts on that were used the previous summer.—A. B. MASON.

There is not much choice. Something porous would be better than oil-cloth. The temperature should not be so high—certainly not over 45 degrees.—THE EDITOR.

The Origin and Cure of Foul Brood.

Written for the American Bee Journal

Query 672.—1. Is foul brood *generally* introduced into a hive from without? 2. Is there any known cure for it, costing less in trouble and expense than the worth of the diseased bees?—Ben Fooled.

1. I do not know. 2. No.—WILL M. BARNUM.

1. Yes. 2. It is very doubtful.—G. M. DOOLITTLE.

1. *Yes, always.* 2. I give it up.—A. J. COOK.

1 and 2. I do not know.—C. H. DIBBERN.

1. Yes. 2. Not where bees are cheap.—DADANT & SON.

1. I presume so. 2. That depends. M. MAHIN.

I do not know. I have not "Ben Fooled" on this question.—J. M. SHUCK.

1. I do not know. 2. In this I am not posted.—J. M. HAMBAUGH.

I do not know anything about it, thank Fortune.—EUGENE SECOR.

1. I think that it is. 2. Yes, the starvation plan, if correctly used, will insure success. It is some work, but the bees and queen are worth it.—H. D. CUTTING.

1. I believe that it is brought from without, like small-pox, but I have had no experience with it.—MRS. L. HARRISON.

1. Wall, Ben, you'll "Ben Fooled" again, ef ye don't *generally* believe it is *always* so introduced. 2. Yes, Ben, and don't yer let any one fool yer agin.—A. B. MASON.

1. Yes. 2. Yes, there is one way, if the colony is not too much depleted. Put the bees into a clean hive with the frames filled with foundation, or with starters (no comb) in the time of a honey-flow. Put no trust in drugs.—R. L. TAYLOR.

There has never been any foul brood near enough to my bees, so that I could have any experience, or even observation with it. From reading, I am persuaded that it usually spreads over the States, from buying bees, queens, etc., from foul broody apiaries; and, once in your apiary, it spreads from hive to hive, through the flight of the bees.—JAMES HEDDON.

1. I think so. 2. If most of my bees were foul broody, I should try some of the cures. If only ten in a hundred were diseased, I think that I should burn up the whole business.—C. C. MILLER.

1. I believe so. 2. The "starvation cure" in connection with a new, clean hive, as first advised by Moses Quinby, is the only reliable cure yet tried. If this costs more than the worth of the bees, they had better be cremated. Most bee-keepers, I notice, are too humane to burn up their bees.—G. L. TINKER.

1. It is so said. 2. Melt or burn all combs, boil the frames in pearline, paint the hives inside and out, put the bees on the "hunger cure" in a ventilated box for 24 or 36 hours, then give them a "shower bath" with the Muth salicylic mixture; place them in a clean hive, on clean combs or foundation, with plenty of syrup of granulated sugar, and "let 'em rip."—J. P. H. BROWN.

1. It is *always* introduced from without; that is to say, it is not generated in the hive. It may be introduced by feeding infected honey; then, of course, the hive would become infected. 2. I do not think that the disease can be eradicated so as to be profitable. I have had experience, and speak therefrom.—J. E. POND.

1. I feel thankful that I know nothing *practically* about "foul brood." There never was a case of foul brood heard of in the blue-grass regions of Kentucky, and we do not want it here. I am well acquainted with what has been written on the subject of foul brood, and I am inclined to think that there is a great deal to be learned about the disease yet; so your question is quite pertinent. 2. D. A. Jones' "starvation cure" is the only remedy that I would have any faith in—if I needed a remedy.—G. W. DEMAREE.

1. Yes. It is not generated within a hive—it is communicated to the colony by using infected honey, or the bees having come in contact with something so infected. 2. The safest remedy is fire, but transferring the bees to a clean hive and comb foundation, will often help the matter.—THE EDITOR.

Essays on Extracted Honey.

We offer Cash PRIZES for the best essays on "Extracted Honey," each essay not to exceed 2,000 words in length, and must be received at this office before Jan. 1, 1890. The first prize is $5.00; the second, $3.00; and the third, $2.00. All essays received on this offer will become the property of the AMERICAN BEE JOURNAL, and is open for competition to its subscribers only.

Amateur Bee-Keepers' Lament.

Written by Request of Dr. A. B. Mason,
BY MRS. FRED GRAHAM.

I hardly know what is required of me,
When requested to write poetry on the bee;
Surely, Doctor, you must be jesting,
And from all such pranks ought to be resting.

The bees are workers—that I'll allow;
But they sometimes cause a terrible row.
Years ago, I had the bee-fever pretty bad—
Inherited, propably, from my Ma or Dad.

I hived them, and even swarmed them, too,
Till, one day they got mad, and stung me through and through;
My hands and face swelled and swelled, until I thought I'd drop,
And still that swelling did not stop.

I had visions of splendor, and lived at my ease—
All of it to come from those hives of bees;
But they vanished, one by one, away,
And not one of them remains to-day.

Maumee, Ohio.

CORRESPONDENCE.

NOT DIGESTED.

Instances Where Bees did Not Digest What they Gathered.

Written for the American Bee Journal
BY ALEX. ROSE.

I am no scientists, but I will give some experience that I had about eight years ago. That season being a very dry one, my bees had but little honey, and I expected that they would starve during the winter. One of my neighbors commenced grinding cane and making molasses, and my bees commenced working on the stalks of ground cane, and filled many sheets of empty comb full of the juice—as thin as it was ground, or pressed out of the cane.

I talked with some "bee-men" about it, and they said that the juice would sour, or freeze, and the bees would all die. I supposed it would be so. The juice was so thin that when I would take out some of the frames, and give them a quick shake, throwing out the juice on a board, it would evaporate as quickly as that much water thrown on the board. But contrary to my expectations, my bees lived through the winter, came out in fine condition in the spring, increased as usual, and gathered plenty of honey. This juice was not "digested;" that is, there was no honey about it—it was clear cane-juice when the winter set in.

Again, three years ago, my bees gathered honey so rapidly that it soured in the sections. The bees took the sour honey out of the combs, but I do not know what they did with it. Some combs were left empty, while others were refilled with good honey. If bees digest honey, why did they not digest this cane-juice and make some sort of honey out of it?

One year ago last summer the oak and hickory leaves were covered with honey-dew, so-called; the bees filled many of the sections with this honey-dew, and, so far as I could tell, there was no change in it; it tasted the same as that on the leaves. There was an immense amount of it on the leaves, so that it could be tasted without any trouble; and every one of my 29 colonies lived through the winter, and gathered 700 pounds of honey in one-pound sections.

I did not increase my number, as I have formally done, and so I now only have 30 colonies.

MANAGING SWARMS.

I adopted the following plan this year, but I had used the same, to some extent, before:

When colony No. 1 swarmed, I moved it to some other place, took out two or more frames of comb, put them in the center of colony No. 2, or in a new hive placed on the stand where colony No. 1 stood. I took the case off of No. 1, put it on No. 2, and then took the new swarm and put it into the new hive. Then I put the old hive on top of some weak colony.

In a few days No. 3 swarmed, when I drove the bees down out of hive No. 1, and removed any queen-cells that might still be unhatched, and put the new swarm into hive No. 1, having replaced three or more frames, with frames of foundation. I placed this on the old stand of No. 3, taking the cases of sections off of No. 3, and putting them on No. 1, with full frames of comb and some unhatched brood, which the swarm never leaves, or has not for me.

By this plan the honey-gathering hardly ever ceases except for a few minutes, as the field-bees come into the new hive on the old stand, and go directly to the sections, the same as before; and the queen finds plenty of empty cells in which to deposit eggs. By this process I have averaged about 24 pounds of honey per colony, spring count, while my neighbor bee-keepers have no surplus honey—not even for family use.

I had about 80 pounds of honey in partly-filled sections, and some were full, but not capped over. I cut this out, and sold it as broken-up honey, at 15 cents per pound. I have sold all my full sections at 20 cents per pound, except about 200 pounds, which I still have on hand, but I can get the same for it on any day that I desire. I find no trouble to sell all the honey that I can produce, at my home town, when I have the honey in good shape.

My bees have plenty of the best of honey for winter. I winter them on the summer stands, leaving on the honey-boards, and filling the top with dry leaves. I shall try the same plans next year, that I worked this year.

Sullivan, Ills.

SHIPPING BEES.

The Danger in Mailing Bees by the Pound.

Written for the American Bee Journal
BY T. F. BINGHAM.

With solicitude I have read the remarks relating to the shipment in the mail, of bees in quantities of four pounds or less. It is not a question of limitation of attendants with the queen, but a matter that concerns us all as bee-keepers. We can, no doubt, by presuming too much, bring about the repeal of the law allowing the shipment of queen-bees having even a few attendants.

My first reason for not shipping a pound or more of worker bees by mail is, that it is not the meaning of the law that they should so be sent. Next, it is not necessary to so ship them. The express companies can handle them as quickly, as safely, as cheaply, and on such short routes as it would be safe to ship such quantities by mail.

We all understand the value of the privilege of the mail shipment of queens. We wish to send them long distances, as well as short ones, and the mail "fills the bill" perfectly. We should all prize this convenience, and do all in our power to bequeath the same privilege to those who happen to be bee-keepers after us.

No one can question the probability that should an accident occur, and a pound of worker-bees be let loose in the mail cars, or mail pouches, or post-offices anywhere, that the confidence reposed in bee-keepers not to abuse or strain the law, would be at once forfeited, and bees would at once and forever be excluded from the mails.

As a postmaster, I should not accept a bundle of worker-bees as a queen-bee and her attendants; but I should regard it as unsafe and not within the meaning of the law, and should refer the matter to the Postal Department at Washington.

In looking over the labors of the Bee-Keepers' Union, it seems plain that bees are not affectionately regarded except by bee-keepers. The fact that so much has to be said and done, is ample evidence that if we do have any rights, especially for our accommodation and welfare, we cannot regard them to carefully.

I trust that no one will jeopardize our rights and privileges to send queen-bees in the mail, by presuming to send a working colony—even though it does not weigh four pounds—for the purpose of saving a few cents of express charges, or other trifling inconvenience. I hope that the Manager of the Bee-Keepers' Union will not fail to cast his advice in the direction of prudence and judicious management of this matter.

Abronia, Mich.

[We gave our "advice" over a month ago. We fully agree with the position taken by friend Bingham, as will be seen by re-reading our editorial on page 676.—ED.]

HEREDITY.

An Important Discussion on Heredity in Bees.

Read at the British Bee-Keepers' Convention

BY MR. R. A. GRIMSHAW.

Are we to assume that the most social of all insects has developed into its present high condition from ancestors who have had less and less of the social instinct in them as we go back into the remote past, age by age, until we find a seemingly perfect solitary honey-bee, queen and drone, male and female, themselves workers, able to gather their own food, as in the case of the queen humble-bee, able to secrete wax and rear its young until the progeny becoming numerous, take these duties upon themselves? If so, in vast spaces of time, the necessity of honey-gathering and wax-secreting, the part of the queen being removed, the organs and glands used for this purpose would by disuse become aborted and atrophied, the tongue would get shorter by degrees until it became, as we find it to-day, too short altogether for the purpose of gathering nectar from flowers, and the wax-secreting glands would disappear entirely, the pollen-baskets would also for the same reason go by the board, or remain only in a rudimentary form.

The reproductive organs would remain, of course, as perfect as we find them, and by the whole energies of the queen being devoted to egg-laying, the ovaries would be developed into the vast egg-producing organs we know them to be.

On the part of the worker (a female bee), the necessity for its participation in the re-peopling of the hive being removed, the requisite organs would at the same rate become atrophied, as we find them, whilst the constant and increased use of other parts (the tongue and the pollen-baskets), would be gradually developed under the marvellous loss of compensation, into what we see they are in the present stage of their development. The fact of certain varieties of *Apis mellifica* having longer tongues than others, would support the suggestion that our bees are not yet on the apex of perfection, as regards the development of the parts necessary for nectar-gathering. Other varietal differences also strengthen the assumption.

The development of the social idea always brings with it specialization of parts, devotion to special labor, and the division of work. Thus we find the probational nursing-period, and its following honey-and-pollen-gathering life, with the divisions of labor into cell-building, wax-secreting, water-carrying, sentinel works, and so on.

Now the question forces itself upon us—how and by what means are all these specializations handed down to the generations? The queen *per se* has only the re-peopling instinct to transmit, which she does in the worker and drone eggs, the worker-bees having certainly as strong desire to keep up the strength of the huge colony as the queen can have—perhaps more so; but she (the queen) inherits nothing from her parents beyound the faculty of depositing eggs by the thousand. She inherits no instinct for mutual defense, the necessity of seeking food, building cells, etc., neither can she transmit these instincts, for neither the queen nor the drone have the power of handing down to posterity something they do not possess.

The truly wondrous developments of various instincts in the worker-bee are not possessed by the parent bees; and as these developments must have extended over enormous periods of time, in order, little by little, by constant use, to reach their present pitch of perfection, these minute advances of the worker must have been perpetuated by some means for the benefit of her successors in the hives of the future.

The queen-bee is more the daughter of her nurses than the daughter of her mother, for, we know, it is only by the changed treatment of a worker-egg by the worker-bees, that she becomes a queen at all. The queen can only lay queen-eggs and drone-eggs, no worker-eggs, only perfect male or female ova; it is the treatment the female eggs receive at the hands of the workers which decides the future line of usefulness in the female progeny. How, then, can any characteristic developed in the worker be transmitted other than by the food fed to the brood out of the digestive organs of the worker-bee herself—food, perhaps, contaminated by the germs of foul brood, by having passed through the worker's own diseased system, but food as much characteristic of the nurse-bee as is the milk of a nurse-mother—a foster-mother—amongst the mammalia?

We have, then, only this dilemma to face: Peculiarities of the worker-bee not possessed by either of its parents must be handed down somehow by itself; and there seems to be no way of the difficulty other than by assuming that she does this in the manner I suggest. If you insist that these are latent in the worker-egg as soon as laid, quite irrespective of any hereditary tendency handed down in the worker-brood food, then I contend that even in this case the queen-mother inherited these tendencies in the so-called royal jelly, on which she fed when in the grub state, but still a brood food which had passed through the system of workers. The same argument applies also to inheritance through the drone.

Ribot tells us, "In animals the transmission of individual character is a fact so common as scarcely to need illustration;" and Darwin supports him by instancing that "if a horse be trained to certain paces, the colt inherits similar movements; the dog becomes intelligent from associating with man; the retriever is taught to fetch and carry; and these mental endowments and bodily powers are all inherited." He also lays down the axiom that "variability results generally from changed conditions acting during successive generations." Therefore I hold that our worker-bee has gradually developed its social instincts, and the well-known distinctive peculiarities it possesses, through multitudes of generations, adapting themselves to changed conditions of life, inheriting and handing down distinct instincts where fully developed; but where only partially developed, handing down a tendency in a given direction.

It may be doubted that brood food (the sustenance of a foster-mother) is capable of transmitting such tendencies. I think that we only need to reflect a short time and we shall be prepared to admit the theory of heredity by generations of specialized food. Darwin assists us again by telling us, "Each living creature must be looked upon as a microcosm, a little universe, formed of a host of self-propagating organisms, inconceivably minute, and as numerous as the stars in heaven. These organic units, besides having the power, as is generally admitted, of growing by self-division, throw off free and minute atoms of their contents—that is, gemmules....Their development depends on their own union with other nascent cells or units, and they are capable of transmission in a dormant state to successive generations."

Such gemmules are congregated in vast masses—vast by comparison—and these vast masses are themselves so minute that I have heard Dr. Dallinger (that prince of microscopists) say that ten million of them might be contained in a box having the diameter of a human hair. If you rub the seeds of the vanilla plant between the forefinger and thumb, you find them so minute that they become firmly fixed in the beautiful furrows of the skin, yet each of these exceedingly small seeds is composed of a mass of separate cells, having the prepotency of growth and self-division—having the power hidden in itself of reproducing a perfect plant.

Thus, "number and size are only relative difficulties, the eggs or seeds produced by certain animals or plants are so numerous that they cannot be grasped by the intellect" (Darwin); and if "organic units during each stage of development throw off gemmules, which multiplying are transmitted to the offspring," is it an unfair assumption that such gemmules are handed on out of the system of the nurse-bee into the brood of the queen and worker-bee, not by means of the mouth of the brood, and thus running the risk of active chemical change, but into the system of the grub, which seems to absorb the surrounding brood-food by every pore, so to speak?

Let us come to the conclusion of the whole matter: The points of the worker are inherited, and they are also handed down; she cannot very well inherit from ancestors neither of which possess such points, neither can she hand them forward to the generations in the ordinary way. We then have to find some extraordinary manner of accomplishing this task, of overcoming what appears to be an insuperable difficulty.

I hope I have given sufficient reason for coming to the conclusion that countless generations of foster-mothers have been the real highways of heredity in our bees, that as the milk-like secretions of the nurse-bee are fed alike to drone, queen, and worker brood, it is by this means that her wonderful adaptations in structure, etc., are perpetuated.

The following discussion took place after the delivery of the foregoing essay by Mr. Grimshaw:

Mr. Garratt complimented Mr. Grimshaw on his very able and interesting essay, but felt, speaking for himself, quite unprepared to discuss it. He thought it would be an excellent thing if the members could be provided with a syllabus of the topics that Mr. Grimshaw proposed to touch upon in any future essay. They would then be enabled to think over the subjects, and express opinions of more value. He could not but think that Mr. Grimshaw's arguments and conclusions were of a speculative character; for instance, to say that the tongue of one bee is not long enough to secure the honey which is secreted in flowers, is hardly correct. It is certain that the conformation of the flowers varies so much that if honey cannot be obtained from one source, it can from others where it is more accessible. They knew that the common red clover could not be fertilized by the bee under ordinary circumstances, the humble-bee being the chief agent in such work.

Mr. Blow said that his views were on the same line as Mr. Grimshaw's. He was of the opinion that the prominent points were transmitted by means of the workers, and not by means of the queen. There were so many points in the workers which the queen did not possess. The whole subject required a considerable amount of thought.

The chairman (Mr. Graham) quite believed that the young of all animals were physically affected to a great extent by foster-mothers. He remembered an instance of a cat and dog living in the same house, each of which had a litter of young at the same time. The kittens and the puppies were so much together that it was no uncommon thing to see the dog attending to the kittens, and the cat to the puppies. The result of that was, that some of the puppies developed significant feline qualities. Noting those facts in which only one generation was concerned, and bearing in mind what an immense number of generations of bees were evolved in the lifetime of one individual, it was a fair assumption that many changes in bee-life might occur in a thousand years. Possibly the queen might obtain sufficient honey for herself, but she was certainly minus the wax-producing faculty. She had no power in the hive, all the government being under the control of the workers, that could stop brood-rearing whenever they pleased.

Mr. Sambels did not believe in the evolution theory of Darwin, but he thought there was something in the suggestion concerning foster-mothers. Unquestionably the structure of the bee depended on the drone, because they knew what would be the effect if a black bee were fertilized by a yellow drone. With regard to the question of temper, he believed the workers had considerable influence. In the case of a colony of vicious bees, the introduction of a quiet and amiable queen did not effect a change at first, because the young bees were influenced by the propensities of the nurses. He had a friend who made a practice of introducing new races, and all his bees, even the Carniolans, were vicious.

The chairman confirmed, as the result of his experience, Mr. Sambels' views on the question of temper.

Mr. Webster concurred in the views expressed regarding the immense influence of foster-mothers.

Mr. Grimshaw submitted that the long tongue of the worker could not have been derived from the queen, which, if she wished, was unable to gather honey; at least, they had no record of doing so. Even though Mr. Sambels would not support the doctrine of evolution, still if he sanctioned the foster-mother theory of development, he (the speaker) would claim him as a supporter. The queen laid only queen and drone eggs—she could not do otherwise; and it was the workers that determined what should be the ultimate produce of the egg.

Mr. Garratt said Mr. Grimshaw's arguments rested very much upon the assumption that the food supplied to the young bees was prepared by the nurses—an assertion which he did not think had yet been established.

The Chairman, Mr. Grimshaw, and Mr. Sambels, expressed dissent.

The Chairman moved a hearty vote of thanks to Mr. Grimshaw for his kindness in bringing so instructive an essay under their notice, and thereby setting them to thinking. He thought there was a great deal of truth in the "foster-mother theory."

QUEEN-REARING.

Methods of Rearing Queens and Producing Comb Honey.

Read at the Erie Co., N. Y., Convention

BY E. D. KEENEY.

I believe that the American queen-breeders have, by judicious breeding and mating, made a vast improvement upon the imported stock, and a demand is already being made by foreign apiarists for American-bred queens. Perhaps climate has had a hand in this improvement, but this much I know, that for docility, prolificness, beauty and honey-gathering qualities, the American-Italian bees beat the world!

In rearing queens, I find it absolutely necessary to have superior fathers, as well as mothers, to produce superior bees; and I try to have all the drones that mate with my queens, reared in 2 or 3 of my choicest colonies, by keeping in the center of their brood-nest, 3 or 4 frames of all drone-

comb the year round; from all other colonies I keep out all the drone-comb possible.

In early spring I crowd these drone-rearing colonies with worker brood, thereby getting early drones. When I find drones well started, I remove the queen from some populous colony, on the second day remove part of the brood, and the next day the balance, leaving plenty of honey, and giving back about half the number of combs taken from them.

I then take a frame of just-hatching larvæ from my choicest breeding queen, and break down about a half dozen cells on each side, wherein the larvæ are of proper age, and hang this frame in the centre of the colony made queenless. On the second and third days I again break down another dozen cells, which will be as many queens as ought to be reared in any one colony at a time. On the fifth day I destroy all other cells that may have started.

I now work all the brood back into this hive taken from it, and into each frame on the tenth day I fasten one of these cells in a wire-cage, and divide the colony into 9 nucleus colonies, tucked up warmly, and shut up tight; the balance of the cells I fasten in provisioned queen-cages, and place them in colonies from which queens have been sold, or place them in wire cages, and hang in strong colonies to hatch, to be used later in making forced swarms.

Now, to return to the 9 nucleus colonies: On the fourth day after making them, I place on all colonies in my yard (except the 3 or 4 drone-rearing ones), the drone-traps, and keep them on 5 to 7 days, which secures mating as nearly pure as possible. As soon as these young queens are fertile, they are introduced into other colonies from which queens have been sold or sent away direct to customers, and the nucleus again supplied with queen-cells.

Now we will return to the cell in a queen-cage placed in a colony to hatch: On the third to the fifth day after hatching, I place her in a queen-cage the size of a finger, and over the open end I tie a piece of newspaper, as you would a sore thumb; this cage is fastened to a frame of hatching brood, and placed in a hive with a close-fitting division-board. Now from some strong colony shake the bees from two frames into this hive, fastening all up tight for 24 hours; during that time, they release and accept that queen, and in from 3 to 5 days she is fertile, and ready to ship, having mated with the pure drones flying at that time.

PRODUCTION OF COMB HONEY.

I am requested to give a brief outline of my management in securing comb honey. I am not sure that it is better than any other system, but it has worked satisfactorily with me, and if any brother bee-keeper will in any way be benefitted by following or adopting any part of it, I shall feel well repaid.

I winter my bees in a cellar, and place them on the summer stands from April 15 to the 20th. On the first still, warm day after, I shut them on whatever number of combs they can cover well, placing tight-fitting division-boards up to them, and put chaff cushions, or papers and old carpet over the brood-frames, and make them as warm as possible.

They are now allowed only entrance room for one bee at a time, in order to retain the heat in the hive, and protect themselves against robbers. They are left in this condition until dandelions bloom, when I examine them all, and clip the queens' wings, and spread the brood, giving each colony whatever additional room it may need. During apple bloom I spread the brood, usually every three days (in all about three times) equallizing the brood in the hives, and classifying them that all swarming may be *done* within three weeks.

From the close of apple bloom to the first white clover bloom, there is a honey-dearth of ten days, and during that time I feed every colony in my apiary from one-half to a pound of thin honey, to insure continuous brood-rearing. At the beginning of white clover, sections are put on, and I examine and equallize again. All colonies are then of about equal strength.

When a swarm issues, I catch a wing-clipped queen, placing her in a wire-cage, while the swarm is in the air; I remove the old hive to a new stand, placing a hive on the old stand with 2 frames of empty comb and 3 frames of wired foundation in the center, placing a surplus case from the old hive on the new one. By this time the bees are returning, and the queen is allowed to run in, when the work is done.

A just-hatching queen-cell is now given the old colony, and sections are placed on the hive. Honey is taken off as fast as it is completed, and room taken or given to them as I think that they require.

At the close of the honey season, the brood from both hives is placed into one of them, with the young queen, and carried to a new stand. Hive-covers are placed on the old stands to catch all the old bees, which are brimstoned at night, and given a respectable burial.

This plan gives young, vigorous bees for winter and the following spring, and saves boarding from 4 to 12 quarts of bees from 3 to 6 months, which means money.

The hives are now weighed, and if wanting any number of pounds to make 25, actual honey weight, the colonies are fed that amount at once, and left alone until carried into winter quarters, which is about Dec. 1.

Arcade, N. Y.

CALIFORNIA.

Early History of Bees and Honey in Southern California.

Written for the Los Angeles Express

BY S. M. W. EASLEY.

The bee-industry in California dates back to 1854, when a Mr. Appleton brought 2 colonies to Santa Clara county and placed them on the Stockton ranch, near San Jose. Bees from those 2 colonies were often seen six and seven miles from home. They did so well that other importations soon followed, and in two or three years some 200, perhaps more, colonies were introduced. From those colonies the States of California, Oregon, Washington and Arizona have been stocked. In Southern California bees are found everywhere. In this, Ventura county, they are found in the house-tops, in trees, between brick walls, in cliffs of rocks, and for want of a better place, they find shelter in the ground.

The writer of this article bought some of the first bees that were shipped to the State. In 1859 I sold 17 colonies for $1,700. Honey was worth $1 per pound. Two years later they sold for $3 per colony. The price per colony now ranges from 50 cents to $1 in box-hives, to $1.50 to $4 in movable-frame or Langstroth hive, according to quality of hive and condition of colony. I took charge of two apiaries in 1884, located on the Simi Ranch in this county. The two contained 444 colonies, and were located about two and a half miles apart. The total yield of extracted honey from those two apiaries (now three, another having been located in 1885, and their increase in swarms now numbering in all 1,500 colonies) has been 568,000 pounds, or 284 tons.

The largest amount made in any one year was in 1884, when 87½ tons were taken from 552 colonies, and the apiaries increased in number to something over 1,200. The lightest yield in any one year was last year, when only eight tons of honey were taken from 1,500 colonies. The highest price obtained for honey in any year was 7 cents, the lowest 4 cents.

The Italians seem to be the favorite race of bees in this State, though I find the Cyprians to be well suited for our mountain ranges. They seem to have greater wing-power than any other. They are quick to resent an injury, and will give you a warm reception when all are at home on a cold day.

The average number of colonies kept in this county is about 14,500. The average yield of honey to the colony is about 70 pounds. My apiaries of 552 colonies produced about 317 pounds to the colony in one. Some smaller ones gathered 400 pounds to the colony, that of Mr. Wm. Whitaker, of Piru City. Last year some apiaries gathered no honey. One apiary in the county, of 280 colonies, this year gathered 12 tons of honey from the wild hoar-hound. The color of the honey is not as light as our sage honey. It has a little bitter taste, and is equal to hoar-hound candy for colds. It ought to bring a fancy price for medicinal purposes.

Ventura, Calif.

ALBINO BEES.

Are they a Malformation or a Diseased Organism?

Written for the American Bee Journal

BY C. J. ROBINSON.

On page 774 of *Gleanings* for Oct. 1, 1889, Prof. A. J. Cook gives *his opinion* of Albino bees as follows:

It is well known that a true albino is really a diseased or imperfect organism. For some cause, the tissues which usually secrete pigment, or coloring matter, are unable to do so. The hair is white, the exposed skin is pink, as its transparency hides not the blood in the superficial blood-vessels, and for like cause the eyes are pink. Thus the skin in a human albino is tender, and the eyes are so unprotected that they cannot bear the light of day. A hare lip is no more a malformation than is albinoism. The fact that man, by selection, has perpetuated this peculiarity in some animals makes it none the less a diseased condition. All animals tend to reproduce unfavorable as well as useful peculiarities.

I have read that albinos often intermarry, and thus there is unfortunately a tendency to increase and perpetuate this diseased condition among people. Now, I do not think this any argument against the so-called albino bees. Scientifically such bees are not albinos. They are not white. They only show more white than others of their race. Thus, if I am correct, these bees are no worse for their characteristics. They are not physiologically deficient as are true albinos, but only sports, or more properly, varieties. Now, if, as varieties, they have valuable characteristics, as their friends claim, then they are superior. Their lighter color enables us to distinguish them, and, if persistent, marks them as a distinct variety. They are no better or worse for it. While the name albino is not really correct as applied to these bees, yet there is no harm in its use. As yet, I have never seen any true albino bees. Yet I have seen albino crickets and cockroaches.

There is no reason why we may not have one of these pyhsiologically imperfect bees. Even should this occur, it would cause no trouble. We all know that albino bees, as sold in the market, are simply a light variety of the Italian race, and no trouble need occur. True albinos will be very rare, at best, and never can cause any serious misunderstanding. A. J. COOK.

In the above Prof. Cook asserts that "it is well known that a true Albino is really a *diseased* or imperfect organism." His affirmation is *not* so "well known" to learned men (other than himself) that it is admitted as being true in any sense. He offers no evidence, no authority, in support of his claim, and there is valid reason for his default, for none exist; the affirmation is dependent on fiction alone, instead of being based on science.

What would Prof. Cook have understood by his use of the term "disease?" Disease signifies not at *ease*, expressive of an abnormal condition; while *ease* is expressive of normal condition.

Prof. C. says that "a hare lip is no more a malformation that is albinoism." It cannot be "well known" that a hare lip, or malformation, or imperfect organism, bears any relation to disease! A hare lip is a deformity, a malformation, while albinoism is a perfect organism, the structure being complete though differing in certain respects. A creature of variegated color is not thereby deformed. A negro of the darkest type is identical (so far as organism may be considered) with the whitest specimen of the race, and the case is the same with all the shades of color between the two extremes.

Prof. Cook claims that all albinos are constitutionally diseased, and that in the reproduction of albinos, "there is a tendency to increase and perpetuate this diseased condition among people." This "disease" is his assumption. The disease could *not* be perpetuated if it does not exist, and he has not produced corroborating testimony that it ever did exist.

It is well known that albinoism has been perpetuated during all ages, and it continues the same, independent of disease. It is well known that albinoism occurs in the bovine races—albino cows—yet the milk of those cows never proved to be unhealthy. Had it been a fact that albinoism is evidence of constitutional disease, the milk secreted by albino cows would be poisoned by the disease.

The Professor alleges that the "skin in a human albino is tender." This assertion is not susceptible of proof—is not true, so far as my observation extends, and I have investigated the subject—some human albinos reside near by me.

Again, he affirms that the "eyes are so unprotected that they cannot bear the light of day." What are the facts in the case? In albinos the iris of their eyes appear red, from its great vascularity. As the pigment in the coats of the eye serves to diminish the stimulus of the light upon the retina, albinos generally cannot bear a strong light; on the other hand, they are better in the dark than others. Because human albinos do not well bear a strong light, perhaps the Professor fancies that it is occasioned by disease, like a hare lip.

Albinoism in the human species is simply this: The coloring-matter is secreted between the cuticle and the true skin, and whatever may be the color secreted—whether it be white of an uncommon hue, or other color—it is normal and regular, however much it differs from any common order. None have authority to decide that any born color is a "physiological defect."

Learned Buckminister wrote: "The shafts of disease (not hare lips) shoot across our path in such a variety of courses, that the atmosphere of the human life is darkened by their number, and the escape of an individual becomes almost miraculous." He had no reference to "shafts" of hare lips, or malformation, or imperfect organisms.

Shakespeare said: "We are all diseased;" and why may not all bees be a little out of "kilter?"

The so-called albino bees are a type of bees of the family showing more or less yellow, but the hairs on the thorax appear white—hence the name, "albino." The term albino signifies, in Latin, *albus*, white. The scientific name being *leucopathy* or *leucosis*. The Professor declares that the so-called albino bees are not white, and "scientifically such bees are not albinos." However, the distinguishing name is a more valid one than the name "Italian," which he applies to bees more or less yellow. "Scientifically" he never saw any Italian bees. He uses the term "*Italian* bees." Now I will follow him and demur to his calling any known type of bees "Italians." No type of bees are indigenous in Italy, but all are truly exotic in that country, and different types of bees have become natives of Italy, as well as in other countries. Bees, showing more or less yellow, have become natives of several countries. Italian, when applied to bees, is truly a misnomer.

If the learned Professor desires and attempts to educate bee-keepers in the use of scientific terms, and the application thereof technically, why not begin at home? Undoubtedly the so-called Italian and all yellow bees are Egyptian bees, for they had their origin in that country; at least, the first came to notice in Lower Egypt.

BEE-EXHIBITS.

A German Apiarist's Views of the Paris Bee-Exhibits.

Written for the American Bee Journal

BY REV. STEPHEN ROESE.

Tony Kellen is the talented writer for the various bee-periodicals in Germany, Switzerland and France, who closely observed every thing exhibited at the late Exhibition at Paris, France, reported the facts about the exhibits of the various countries and nations of the World, in the German bee-paper, *Der Bienen-Vater aus Boehmen*, page 152. According to his statements, it can be clearly seen which nation takes the lead in apiculture. His remarks concerning our nation and country are as follows:

North America is represented by a grand exhibition of over twenty bee-hive manufacturers, and supply dealers, among them being the well-known names of Dadant, Muth, Root, Heddon, etc. Their exhibition was the most remarkable and practical, and most beautiful of all on exhibition. A description of the various patterns of hives, supplies and products would require many sheets of paper to describe, and whoever would undertake to give a detailed description of each article, would need a hand-book on bee-culture; and this is something in which Europeans fall far short.

England and America have, in apiculture, by far outdone the German nation, to say nothing of the rest of the countries represented. They may in the beginning have learned many things from the Germans—this I will admit—but what they did learn they knew how to put into practice, without standing still, and there is sufficient reason why we find in America the most noted, talented, and most successful bee-keepers in the World; and at this date the Germans and French might well go to the English and Americans, and learn successful and practical bee-keeping.

Concerning bee-literature alone, the Europeans fall far short in coming up to the standard. It will take a long time before we Europeans will be able to present before the public such works as Root's "A B C," or Langstroth's "Hive and Honey-Bee," etc.

The only one who at present, this side of the Atlantic Ocean, attracts public attention, is Master Gravenhorst. We have, aside from his valuable "Imker," a host of other works on bee-culture, and what is most remarkable about the whole thing is, that each work is often reprinted in the second and third editions.

Very remarkable is the way and manner in which Americans establish their apiaries. At the Exhibition I saw a long line of photographs of American apiaries, and in every case the hives stand separate, and free from each other. Nowheres do we find high benches or tables on which the hives stand—not even bee-houses.

There was also a great glass case, full of the nectar sweets, in the most attractive glass honey-pails, in frames and in sections. TONY KELLEN.

BEE-NOTES.

Freaks Among Bees, Golden-Rod, and the Coming Bee.

Written for the American Bee Journal

BY CHARLES A. BUNCH.

I arranged some nucleus hives for queen-rearing, and gave each a ripe queen-cell, and in 3½ days I found one of the queen's laying—just 19½ days from the time the comb was replaced in the hive of the breeding queen. This queen was from this year's rearing, and proved to be a rapid layer.

I found a bee with the head and thorax of a worker, and the abdomen of a drone; and another bee with but one eye, as there was no division at the top of the head like other bees, but "a continuous eye," if that would be the proper expression.

I always expect bees to work on golden-rod, if we have a heavy rain to soak the ground well when in bloom, as it will stand rain better than drouth.

I commenced the season with 24 colonies of bees in good condition; six of this number I divided into two and three frame nuclei for queen-rearing, which left 18 for increase and honey-producing. My crop of honey in one-pound sections was 1,050 pounds, and increased to 43 colonies. I think that the bees would have done considerably better had it not been for so much brood getting chilled and thrown out about May 30—a spell of weather not to be forgotten.

Doubtless some are waiting for the "coming bee," thinking that it will be a new strain of bees, produced by crossing and selection. Such need wait no longer, as the "coming bee" is here, and has been here for sometime. It is produced by crossing the best strains of Ligurian bees with the best Italian bees. This strain of bees is industrious and gentle, and the bee-keeper that admires beauty, will look on such with pleasure.

I cannot help thinking that it will be many a day before the above-named race of bees will allow their banner to be hauled down and stamped in the dust; and if it comes to pass, it will not be without a desperate struggle.

La Paz, Ind.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Dec. 4-6.—International, at Brantford, Ont., Canada. R. F. Holtermann, Sec., Romney, Ont.

Dec. 16, 17.—Northern Illinois, at Rockford, Ills. D. A. Fuller, Sec., Cherry Valley, Ills.

Dec. 16.—Huron & Tuscola Co's., at Sebewaing, Mich. J. G. Knudinger, Cor. Sec., Kilmanagh, Mich.

Dec. 26, 27.—Michigan State, at Lansing, Mich. H. D. Cutting, Sec., Clinton, Mich.

1890.

Jan. 22.—Vermont State, at Burlington, Vt. J. H. Larrabee, Sec., Larrabee's Point, Vt.

May 2.—Susquehanna Co., at Hopbottom, Pa. H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

Golden-Rod as a Honey-Plant.

I have been summing up the reports upon golden-rod since Sept. 7, in regard to its value as a honey-plant, and I find the following:

Unfavorable reports: Iowa, 2; New York, 2; Nebraska, 2; Ohio, 1; Illinois, 1; Wisconsin, 2; Kentucky, 1; and Kansas 1—making a total of 12 unfavorable reports.

Favorable reports: Nova Scotia, 1; Wisconsin, 2; Massachusetts, 1; Michigan, 1; Tennessee, 1; New York, 6; Pennsylvania, 1; Washington Territory, 1; Vermont, 1; Missouri, 1; New Hampshire, 1—making a total of 17 favorable reports.

To sum up, there are from the Western States, 4 favorable reports, and 9 unfavorable ones; Eastern States, 11 favorable, and 2 unfavorable; Southern States, 2 favorable, and 1 unfavorable. By this we see that the majority of unfavorable reports are from the Western States, and the majority of favorable ones are from the Eastern States. Now I would like to have Prof. Cook see if he cannot give some pointers that will be of benefit to us, if for nothing else but to satisfy our curiosity. The AMERICAN BEE JOURNAL has been to considerable pains in getting so many reports from so many different parts of the country, and it seems as though we should derive some benefit from it.

G. H. ASHBY.

Albion, N. Y., Nov. 18, 1889.

Getting Bees Out of Sections.

In the well written and finely illustrated article by Mr. F. Greiner, on page 727, I am requested to prevail upon the inventor of any better plan for getting bees out of surplus receptacles than is there illustrated, and to publish the same. He closes by saying that thousands of bee-keepers, who are working hard to make an honest living, will thank me for it.

I have the most kindly feelings towards the class of hard-working bee-keepers to which Mr. Greiner refers, and that is the reason why I have always tried to check the influx into our business to an extent hurtful to this very class.

If Mr. Greiner is familiar with my work during the past twenty years, I would ask, in all candor, if I have not done my share of *gratis* labor. I think so; and when I came to one (and that which I considered my crowning invention), procured a patent upon it, and asked for a partial payment for my labors, it turned out that in the bee-keeping ranks was a class not enumerated

by Mr. Greiner in his sentence, "who are working hard to make an honest living," but who were working in every way to deceive, to the end that some one might not get a dollar, or an honor, more than they have been able to command.

The invention referred to by Mr. Greiner, is that of another, and one who can well be excused for being embittered by the treatment his father has received. There are many kinds of charity, all of which are good, that should *not* be dealt out promiscuously. Every one should deserve what he gets. That would foster a deserving deportment. JAMES HEDDON.

Dowagiac, Mich.

Honey Crop Almost a Failure.

The honey crop of Southern Illinois is almost a failure in some localities, and other places gave ¼ to ½ of a crop. In southwestern localities, among the poplar (tulip) trees, bees did not do so well, on account of the cold spell in May, which is the time that the poplar is in bloom. My bees averaged only 33 pounds per colony this year, and 43 pounds in 1888.

Boyleston, Ills. THOS. C. STANLEY.

Good Yield of Honey—Robbing.

I had 49 colonies in chaff hives last fall, and lost 3 in the spring, one having died (a swarm that came to me), and the other 2 were robbed out, which left me 46, all in good condition except a few weak ones, which finally became all right. Then two weeks of cold, rainy weather came on, and all the bees would have starved, if I had not fed them about 150 pounds of sugar that lasted them until they could get out to gather honey; in a few days the brood-chambers were full, and I had to put on the supers; in a week I extracted 900 pounds and in 3 or 4 days, 1,200 pounds more, and so on till I had extracted nearly 10,000 pounds of honey, besides saving lots of filled combs to put back for winter. I sold all of my honey for 5 and 6 cents per pound, but mostly at 6 cents. Another person and I extracted 2,200 pounds in one day. All of my crop is from 46 colonies of bees. How is that for high? Besides I increased my apiary to 90 colonies, which are now in chaff hives.

To stop bees from robbing, I take a double handful of straw and put it at the entrance against the hive. They cannot, or will not, alight on this, and will soon give up robbing. The bees in the hive will not smother if straw is left there for any length of time. Take it away in the evening. NATHAN MERCER.

Neosho, Wis.

Poor Season for Honey.

I started last spring with 30 colonies, and I now have 51, increased by natural swarming. The drouth held on in the spring until it came nearly killing all the white clover here in Clark county, and it held on for weeks after it had commenced to rain in all the other parts of the State, and we could hear of its being too wet there. The last of May it commenced to rain here, and when it did begin it seemed as if it would never stop; but at last it did cease, and did not rain any more, so that the buckwheat came nearly dying just as it began to bloom. Of course we got no honey from it. Then the cold nights began, so that it was the poorest fall for honey that I have ever known. I got only 500 pounds of honey, of bad quality. The fall honey was better, and I trust that it will winter the bees. I am in hopes that next year's crop will be a good one, for all the earth is a mass of white clover this fall. Some say that they are not discouraged by a failure, but it hurts to have three years of failure, and to see the bees starve to death just when they ought to be thriving and swarming. Still, one thing consoles me, for I can think back to the time when I had honey by the ton—it was when I had to back a wagon to my front door, and haul the honey off by the ton. Then it was, "Where can I sell all the honey?" Now it is, "What will I do for honey for my customers?" The question with me is, How can I produce the honey? Golden-rod is worthless for honey here. Spanish-needle, heart's-ease and white clover are all that we can depend upon for honey.

D. R. ROSEBROUGH.

Casey, Ills., Nov. 15, 1889.

Queen-Cell Knife, etc.

I make a good queen-cell knife as follows: Take an old corset steel, about ¼-inch wide, break it off 3½ inches long, and grind one end in the shape desired for cutting, and sharpen the edge as far back as it will be needed. Then whittle out a handle about the size of a lead-pencil, 3 inches long, and split it half the length and insert the steel; tie a thread around the end in a groove, and it is ready for use. It is thin, and just right for cutting out queen-cells. Make several, and have one always handy.

This has been another year of failure with us here. White clover was abundant, but the bees did not notice it much. From 23 colonies, I got only about 110 pounds of honey, and increased them to 32. This is the fourth year of failure in succession. The fall honey-flow generally fills the brood-chambers. HUGH L. LYNN.

Glenville, Ky.

Gone to Washington.

As Secretary of the Northeastern Ohio, Northwestern Pennsylvania and Western New York Bee-Keepers' Association, I wish to announce through the AMERICAN BEE JOURNAL, that our President, Mr. W. A. McLain, from change of location, has been obliged to resign the presidency of the association. I know that it will be news that all the members of the association will be very sorry to hear, for Mr. McLain was always genial and ready to do all in his power to make our meetings profitable. His hearty hand-shake will be very much missed. Mr. W. A. McLain moved with his family to Seattle, Washington (State), on Nov. 12. Though he has sold his bees, we believe that his interest in them is such that he will secure some of his pets in his new home. H. S. Sutton, of Franklin, Venango Co., Pa., 1st Vice-President, is now the President of the association.

We are having a nice fall, and up to this time we have not had snow enough to cover the ground. Bees generally have plenty of natural stores for winter.

GEO. SPITLER.

Mosiertown, Pa., Nov. 19, 1889.

Varieties of the Clover.

I notice on page 725, that Mrs. L. Harrison, in her answer to Query 668, claims to know of forty different varieties of clover. Will she please to give the names of the forty varieties, and also where they exist? C. E. WOODWARD.

Xenia, O., Nov. 16, 1889.

[At our request, Mrs. Harrison gives the following reply to the above.—ED.]

In the "Herborium" of the Department of Agriculture at Washington, D. C., are specimens of the forty varieties of native clovers (*Trifolium*). The largest number of these belong to the Pacific side of the continent. Of these forty species, only eight (I think) have been experimented with and cultivated, to determine their value for forage and fodder. We have experimented to some extent with six varieties. Then there is the Japan clover (*Lespedeza striata*), that is not a *Trifolium*, but which has been found to be of value in Florida, Southern Alabama, and Georgia, for forage. For pasture in your locality, there is probably nothing better than Alsike clover (*Trifolium hybridu*), which gives great satisfaction with us. The Department of Agriculture has issued several special reports on our native grasses, the principal of these, called the "Agricultural Grasses of the United States," is a pamphlet of 144 pages, with 120 full-page engravings. You can probably obtain it through your Member of Congress; or by writing directly to Hon. Jeremiah Rusk, Secretary of Agriculture, Washington, D.C.

MRS. L. HARRISON.

Peoria, Ills.

Bee-Escapes Further Described.

On page 697, Frank Coverdale attempts to describe a bee-escape to get bees out of sections—a board ⅜ of an inch thick, to just fit the section-case; nail ⅜-inch strip all around; then a ¾-inch hole is bored in the board, and a 1⅜-inch cone made so fit in the hole. This board is slipped between the case of full sections and the brood-frames, or between the top and middle cases, and the cone dropped in the hole in the board, through which the bees will descend into the brood department. Observe, the board is ⅜-inch thick, and there will be but a ⅜-inch bee-space below it until the sections or brood-frames are reached—the thickness of board and space under it making in all ¾ of an inch. The wire cone being 1⅜ inches long, the point will rest on the tops of sections or frames. How are the bees to get down? E. E. EWING.

Rising Sun, Md.

[At our request, Frank Coverdale replies to the above as follows:—ED.]

Judging from the letters received by me concerning my bee-escape board, it has apparently been quite plain to all, as far as I know, except the above. In answer to Mr. Ewing, as to how to manage the cone, I would say: Bore the ¾-inch hole, as I mentioned on page 697, over the opening of the sections. This is done so that the wire-screen cone will go down between the sections or brood-frames—otherwise of course it would not go down. When used over a wood-zinc honey-board, the cone must be made shorter, so that the lower point will come down between the slats close to the zinc perforations.

FRANK COVERDALE.

Welton, Iowa.

The Honey Crop.

On page 731, Mr. C. D. Barber, Stockton, N. Y., says that I reported the honey crop of Chautauqua county, N. Y., a complete failure, and avers that his bees never did better, and that my report "was incorrect." In justice to myself, I would respectfully say that as I made no such statement, the "incorrect report" applies more fittingly to Mr. Barber's letter, than to any on page 556. The letter would convey the idea that I had positively asserted that which I did not know. In the future, Mr. Barber will please read more carefully, and report more *correctly*. H. E. HILL.

Titusville, Pa., Nov. 19, 1889.

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Doolittle on Queen-Rearing.

Queens can be reared in the upper stories of hives used for extracted honey, where a queen-excluding honey-board is used, which are as good, if not superior, to Queens reared by any other process; and that, too, while the old Queen is doing duty below, just the same as though Queens were not being reared above. This is a fact, though it is not generally known.

If you desire to know how this can be done—how to have Queens fertilized in upper stories, while the old Queen is laying below—how you may *safely introduce* any Queen, at any time of the year when bees cay fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing;" a book of 170 pages, which is nicely bound in cloth, and as interesting as any story. Price, $1.00.

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☞ Please notice our latest Premiums for getting new Subscribers, on page 751 of this issue. It will pay every reader to endeavor to procure new subscribers for us. We ought to get thousands of new readers during the next two months.

☞ W. D. Soper, of Jackson, Mich., has his new Catalogue of Bee-Keepers' Supplies for 1890 on our desk at this early day.

Honey and Beeswax Market.

DETROIT.

HONEY.—Demand is fair for comb at 13@15c. per lb. There is more dark honey than light. Extracted, 8@9c.
BEESWAX.—24@25c.
Nov. 11. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—Receipts of comb are averaging about as they usually do with a fair crop. Prices rule at 13@14c. for choice to fancy 1-lbs., which comprise the bulk of the receipts, very little in sections averaging 1½@2 lbs., and sells at 10@12c½.; dark, 8@10c Extracted, 6@8c.
BEESWAX.—25c. R. A. BURNETT.
Nov. 8. 161 South Water St.

KANSAS CITY.

HONEY.—Fancy white 1-lbs., 14c.; good, 13c.; dark 11c.; white 2-lbs., 13c. Extracted, white, 7c.; dark, 6c Demand good.
Nov. 11. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—1-lb. comb, 15@18c. Extracted, 7@8c.
BEESWAX.—20@25c.
Nov. 11. J. M. CLARK COM. CO., 1421 15th St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 14@15c.; 2nd grade white 1-lbs., 13@14c.; old dark 1-lbs., 10c.; new, 10@11c. Extracted, white, in barrels and kegs, 7@8c.; in tins and pails, 8@8½c.; dark, in barrels, 6@6½c.; in kegs, 6@7c. Demand steady.
BEESWAX.—22@23c.
Nov. 11. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—Extracted, white clover, basswood, orange blossom and California, 8c.; buckwheat, 6 cts.; common Southern, 65@70c. per gallon. Demand is good. Comb honey, fancy white 1-lbs., 16c.; 2-lbs., 14c. Fair 1-lbs., 14c; 2-lbs., 11@12c. Buckwheat, 1-lbs., 11@12c.; 2-lbs., 10@11c. Demand very good for fancy white 1-lbs., and buckwheat 1-lbs.
BEESWAX.—22c.
Oct. 2. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—Demand for white clover 1-lbs. is improving, but price depends upon size and style of package, condition and appearance when received, ranging from 12@13½c.; baswood, 11@11½c.; buckwheat, 8@10c. Extracted, 6½@7½c., depending upon style and size of package.
BEESWAX.—27@28c.
Nov. 9. S. T. FISH & CO., 189 S. Water St.

NEW YORK.

HONEY.—Demand fair. Western honey arriving freely, and prices declining. We quote: Fancy white 1-lbs., 14@15c.; 2-lbs, 12@13c.; off grades and mixed 10@12c.; buckwheat 1-lbs., 10@11c.; 2-lbs., 9c. Extracted white clover and basswood, 7½c.; orange bloom, 8½c.; California, 7½c.; buckwheat, 6 cents; Southern, 70@75c. per gallon.
HILDRETH BROS. & SEGELKEN,
Nov. 6. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—We quote: Fancy 1-lbs., 16@17c.; fair, 14@15c.; 2-lbs., 15@16c. Extracted, 8@9c. Market is in fairly good condition, but we are getting some of the odd grades from Western New York, Michigan and Wisconsin, and it is not arriving in very good condition, making it hard to sell.
BEESWAX.—None on hand.
Oct. 21. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—A large amount of Comb on the mardet at 14@16c for best white. Extracted at 5@8c.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Nov. 22. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—Receipts are very light, and demand is increasing. We quote: White 1-lbs. 13@14c.; dark, 10@12c.; white 2-lbs. 12@13c.; dark, 10@12c. Extracted, white, 7@8c.; dark, 6c.
BEESWAX.—None in market.
Oct. 12. CLEMONS, CLOON & CO., cor 4th & Walnut.

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Heddon's book, "Success,"	1 50	1 40
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IS published every week, at **6s. 6d.** per annum. It contains the very best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huckle, King's Langley Herts, England
Mention the American Bee Journal.

BRIGHT ITALIAN Bees and Queens, Bee-Hives, Sections, Foundation, etc.
12A1y **H. H. RUETER,** Baxter Springs, Kan.
Mention the American Bee Journal.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Dec. 7, 1889. No. 49.

EDITORIAL BUZZINGS.

I know that Winter's coming fast,
The shortening day, the early night,
The zephyr chased by colder blast,
The woods adorned with colors bright.

Clubs of 5 for $4.00, to any addresses. Ten for $7.50, if all are sent at one time.

☞ Mrs. G. W. Boynton, La Crescent, Minn., died on Nov. 23, of paralysis of the heart, aged 65. The BEE JOURNAL extends condolence to a brother apiarist.

☞ The December numbers will be sent *free* to all new subscribers as long as our stock lasts—so the sooner you subscribe, the more you will get. Every yearly subscription will run for the full year 1890.

☞ We always extend the term of renewal subscriptions from the date of expiration on our books. Present subscribers whose time may expire one, two, three or six months hence, can safely renew now, without fear of loss thereby.

☞ The Holiday number of the ILLUSTRATED HOME JOURNAL will be beautifully illustrated, and besides the usual inviting matter, will contain much that will be exceedingly interesting during the Holidays. It will be issued about December 20—in good time for the festive season.

☞ The Canadian *Bee Journal* has our thanks for kindly mentioning our name in connection with the management of the interests of apiarists at the World's Fair. We have already indicated our choice—Dr. A. B. Mason—and hope he will accept the responsible position. He is the right man for that place.

A Special Club Rate.

A Magazine of the choice literary character which the ILLUSTRATED HOME JOURNAL sustains, will add many pleasures to any "family circle." Its beautiful illustrations and interesting reading-matter will make it heartily welcomed at every "fireside" in the land.

We desire that every one of our readers should secure its regular visits during the year 1890, and in order to induce them to do so, we will make this tempting offer:

We will Club the AMERICAN BEE JOURNAL and the ILLUSTRATED HOME JOURNAL, and mail both periodicals during the whole year 1890 for **$1.50**, if the order is received at this office before January 1, 1890.

Such a *remarkably low* club rate as the above, should induce every reader of the BEE JOURNAL to accept it without a moment's delay.

As a further inducement, we will mail the superb number for December, 1889, *free* to those who send their subscriptions early; that is, until all the December numbers now on hand are taken.

New subscribers to the above club will have the December numbers of both of the JOURNALS free—as long as the stock lasts. So the sooner they subscribe, the more they will get for their money.

World's Fair Bee-Convention.

Mr. R. F. Holtermann, the Secretary of the International Bee-Association, writes thus:

I should like to see the International American Bee-Association what it should be: and it ought to have, in its treasury, funds to defray the expenses of an International Convention during the World's Fair in 1892. Who knows the grand results which may be secured from a convention of bee-keepers of the World? To do this, we must commence at once; and I propose that every one who can, shall send one dollar as a membership fee to the International for the coming year; and if the surplus be voted to me for the work of the past year, I will turn it over to the treasurer, to remain as funds of the Association. Surely, many will be found who will endorse this scheme, or something like it, and send their dollars. R. F. HOLTERMANN.
Romney, Ont.

We like that, and it would be a fine thing to have a very creditable exhibit of bees and honey at the World's Fair in 1892, and invite the bee-keepers of the World with us.

☞ Dr. J. B. Wilcox, Manistee, Mich., subscribed for the ILLUSTRATED HOME JOURNAL last April, and now, when sending another subscriber, writes: "I intend to keep the HOME JOURNAL in my office for my patrons to read while waiting, but they are so much interested that every number is loaned." That is the unanimous opinion. All who see it want its regular visits.

☞ Clubs for anything in our Premium List may be for either of our JOURNALS, or for any number of either or both of them.

Our Supplement.

Our Premium List is sent as a Supplement to this issue, and we hope that it will be carefully examined by all our readers and that each one will select a Premium, and obtain the necessary number of new subscribers, to procure it.

Books Given Away.

Please notice that magnificent list of Popular Books on the second page of our Premium-List Supplement. We offer any Book in that list, which you may select, as a Premium for getting *one new* subscriber, with $1.00 to pay for the same. The Books are nicely bound in cloth, elegantly gilded, and contain from 300 to 500 pages each. The list comprises over 150 of the most popular Books of the day, and are published at $1.00 each.

This is the most remarkable Premium ever offered for obtaining one subscriber. If you want it sent by mail you must send 10 cents extra for the postage. If sent by express from New York, it is entirely *free*. We will sell any number of them to you at 40 cents each by mail, postpaid.

☞ The *Standard*, of New Bedford, Mass., has this to say about the ILLUSTRATED HOME JOURNAL:

The November number of the ILLUSTRATED HOME JOURNAL is received, and contains very interesting matter of a moral and intellectual character, and its historical and biographical sketches, as well as its stories, etc., are charming. It contains a Young Folks' Department, the Household, and the Family Circle, teeming with entertaining and practical matter, suggestions and hints.

☞ C. Schliesmayer, of Pasadena, Calif., writes thus about the Doolittle book on "Queen-Rearing" we sent him:

I have received the book, "Doolittle on Queen-Rearing," and I am well pleased with it. The printing and binding are fully equal to the reading matter—and all are excellent.

☞ If any of your numbers of the BEE JOURNAL for this year are lost or mislaid, and you desire others to replace them, you should look them over at once and send for them before all our stock is exhausted. They are already getting low on some numbers.

☞ If any one wants a club of two or more weekly or monthly periodicals, besides one or both of our Journals—send us a Postal Card, and we will then quote the lowest possible price, by return mail. The number is too great to enumerate.

☞ Any of the Political Dollar Weekly Newspapers will be clubbed with our JOURNAL at $1.75 for the two; or with both our HOME JOURNAL and BEE JOURNAL for $2.50 for all three papers.

Music at the International.

The words on this and the next page was composed by Mr. Eugene Secor, and the music by Dr. C. C. Miller—and both were made especially for the International Convention. We give them a place in the BEE JOURNAL, so that all can join Yakob in singing about his bees in the spring-time, whether they were at the Convention or not.

Essays at Conventions.

It has been tried at several conventions to dispense with essays, and we think much of the usefulness of such bodies has been lost by their absence. The *Review* for last month, under the caption, "Do we need conventions?" makes some capital points on this subject. We will have to reproduce the article, and commend it to the consideration of all our readers:

It is true that many little things come to light at conventions that would never have been written. Under the stimulus of a face to face debate, when the eyes flash and the cheeks kindle, thoughts come thick and fast; and in this friction of mind against mind, many a spark of wisdom flashes into view. Conventions bring out and diffuse knowledge that would otherwise lie hidden, as it often happens that the possessor of an active brain and a nimble tongue may have fingers to which the pen is a stranger.

We *do* think short, crisp, aggressive essays, as "discussion provokers," are needed at conventions. There should be no attempt to treat the subject exhaustively, but rather to say something that will make men feel like getting up and talking.

The Secretary ought to see to it that such essays, and *none* others, are secured. He should so inform the ones who are asked to write esays. A well-considered programme, with the best men available to lead in the discussions, either by essays or address, is a great step towards success; besides, a published programme is one of the best advertisements that a convention can have. But we cannot for one moment believe that an essay from a man is to be compared to having the man himself present at the meeting—the one is a love letter, the other the lover himself.

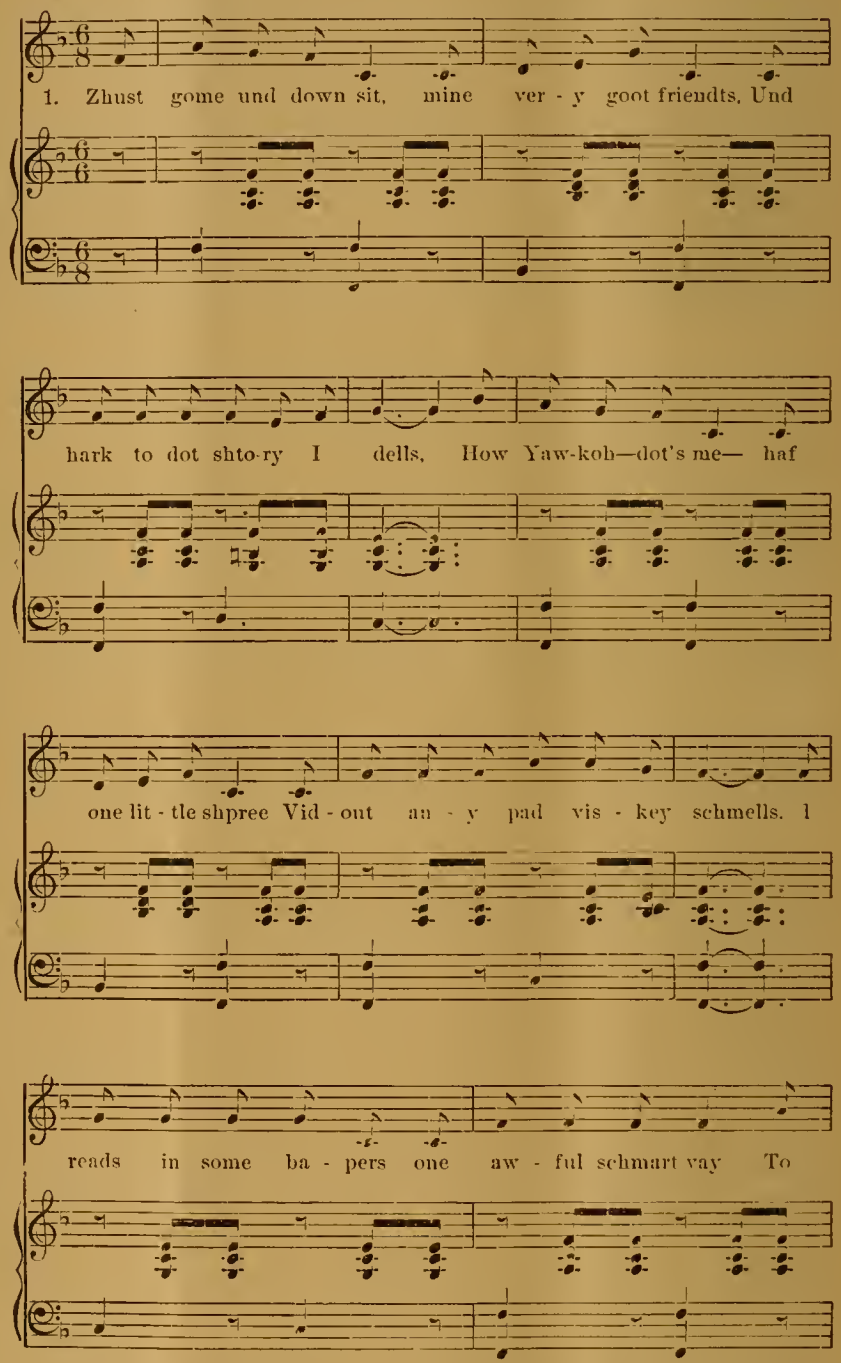
We believe it is also true that apicultural literature is largely dependent upon conventions for its brightness, its "newsiness." In the October *Review* for 1888, we said: "We have always noticed that when the editor of a journal attended a convention, the next number of his paper was greatly improved. There would be a freshness and sparkle, indescribable, but nevertheless very apparent." If conventions have such a beneficial effect upon editors, why should they not be a benefit to subscribers?

But, after all is said and done, we feel that it is the social feature that brings us together; it is the enjoyment of this personal magnetism between choice spirits that attracts us.

At the last meeting of the Northwestern, the editors of the AMERICAN BEE JOURNAL, *Gleanings* and the *Review*, together with Dr. Miller and Mr. Heddon, attracted by a sort of affinity, clustered together in a cozy corner one evening as the crowd was dispersing, and talked, and talked, and talked; started once or twice to go to their rooms, only to come back again; and it was only as the small hours approached that Bro. Newman went home, and the others "paired off" and went to bed to "talk some more." Such hours are golden, and

Spring-time Joys.

Words by EUGENE SECOR. Music by Dr. C. C. MILLER.

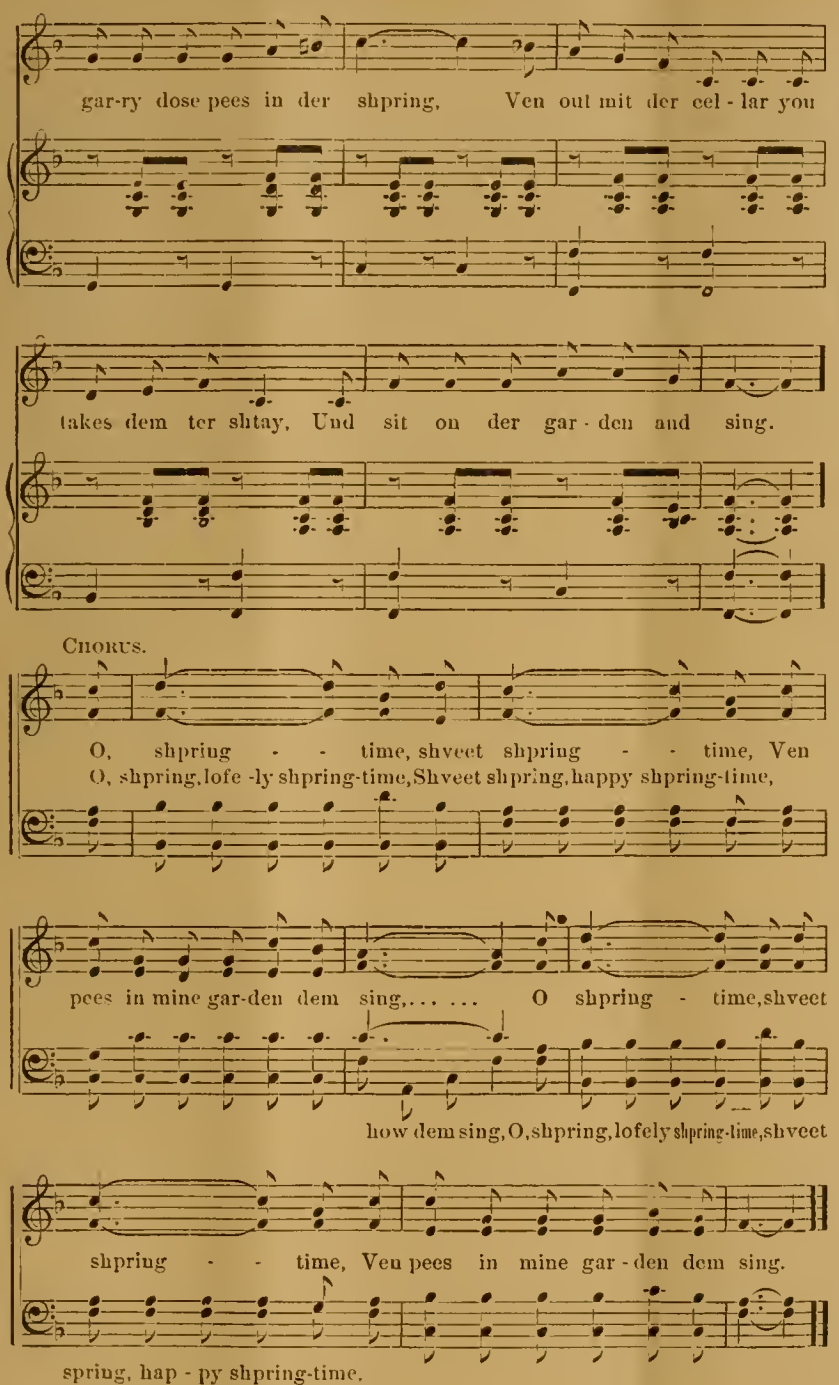

1. Zhust gome und down sit, mine ver - y goot friendts, Und
hark to dot shto-ry I dells, How Yaw-kob—dot's me— haf
one lit - tle shpree Vid - out an - y pad vis - key schmells. I
reads in some ba - pers one aw - ful schmart vay To

Den Yakob—dots me—upon der town vent
Ter make vone gollar mit shtraps;
Dot saddle man fix up der ledder zhust nice,
Und drimmed it mit puckles und schnaps.
I harness mineself like vone Mason Grand Knight,
Und cfery vone meets me und sings—
"Now Yakob vats op?" "Vats inside your head?"
I dells dem, "Zhust vaits dell der Shpring."

Ven Aprile vas gome, und dot snn vas got varm,
I put on my mine new-fangled gear,
Und goes down der cellar so happy und shpry.
You dinks I vas married dis year.
You nefer saw anydings vork so like dot,
So handy dose poxes ter pring—
I nefer more preaks Katrina's poor pack
Ter garry dose pees in der Shpring.

I sings like vone jhay pird, so happy I feels,
Und plesses dot awful schmardt man
Vot makes up dot harness all ondt of his headt,
Ter garry dose pees on deir schtand.

Spring-time Joys. Concluded.


gar-ry dose pees in der shpring, Ven out mit der cel - lar you
takes dem ter shtay, Und sit on der gar - den and sing.
Chorus.
O, shpring - - time, shveet shpring - - time, Ven
O, shpring, lofe -ly shpring-time, Shveet shpring, happy shpring-time,
pees in mine gar-den dem sing,... ... O shpring - time, shveet
how dem sing, O, shpring, lofely shpring-time, shveet
shpring - - time, Ven pees in mine gar - den dem sing.
spring, hap - py shpring-time.

Ven oudt mit der cellar ten poxes vas gome
Und Yakob—dots me—haf no shting,
I lafs me all ofer und says to mine vraw,
"I loves eferybody dis Shpring."

Katrina, her sit on der vindow und shmiles,
Und I dinks of dot dime her vas young—
But I don't nefer dinks dot dose innocent pees
Vas grawling mine drowsers among,
Dill I prag oudt vone oder pox zhust poorty soon,
Und shteps zhust as broud as dose kings—
Dunder und blixen—gimlets mit schteel
Vas loose in mine preeches—mit vings.

Ven Yakob—dots me—drys to larrup dot peo,
Ten tousand zhust gome to der fight
From oudt ef dot pox vat I got on mine pack,
Und gif me some music dot night.
"Katrina, Katrina, I'm deadt, dot vos sure,
Und shticking all ofer mit shtings—
Make Yakob let go mit a puteher-knife kvick,
Or your true lofe vill nefer more sing."

will ever linger as bright spots in the memory.

As E. D. Keeney, of Arcade, N. Y., says in a private letter, "We need more play days and rest days, and at the conventions we can drop our business and cares, and can rest and learn, and feel better for it. We can go back to our work with renewed vigor and life."

While it is true that the abundance of cheap and excellent literature has greatly lessened the necessity for conventions—has completely overshadowed them as a disseminator of knowledge—it is equally true that conventions yet have, and always will have, a vast influence. We cannot spare them.

To have a personal acquaintance with the best men engaged in the same occupation as ourselves, is no small advantage; it gives us broader views; by them we can measure ourselves and see where we are lacking; it adds to our enjoyment and to our knowledge. Without conventions our acquaintanceships would be few and far between. Joined with the press, the convention becomes all-powerful—the words of wit and wisdom fall not only upon the ears of the assembled hundreds, but are seen by thousands of readers scattered all over this fair land. The convention and the press—we need them both.

The International.

Our Canadian brethren are intending to do something handsome in the way of entertaining their visitors from this side of the line. The *Canadian Bee Journal* remarks as follows:

Canadians are, in duty bound, to give our American friends a rousing welcome, and show them by our numbers and enthusiasm, that we fully appreciate the holding of the International on Canadian soil. Aside from the social fellowship, think of the information you will gain, and the benefit it will be to you in forming new acquaintances and associations. This chance comes but seldom, and we are sure that none will stay away who can possibly get there.

The Brant Bee-Keepers' Association makes this announcement through its Secretary, Mr. D. Anguish:

We have made arrangements with the City Council for the Wickliffe Hall, an address of welcome from the Mayor, and have secured an instrument, hoping that some of our visitors will enliven the proceedings with a little music.

We admit, Brantford is not as large as Buffalo, nor as attractive as the Falls of Niagara, but never mind, come right along. You may see more than you expect. Be sure and come, everybody that is interested in bee-keeping, and bring your friends. Let us have a large and interesting gathering of bee-men such as we never had. What is the Falls of Niagara, or Buffalo, compared with a large gathering of, I am sure I may safely say, good looking and intelligent bee-keepers?

It is quite uncertain whether we can attend the International Convention, this year, much as we desire to do so. On account of afflictions in our family we cannot plan for any future date. That meeting is of vital importance to the pursuit, and we hope that it will be a very interesting and enthusiastic gathering, and that the interests of the pursuit will receive the closest consideration, and be aided by the wisest measures.

QUERIES AND REPLIES.

Bees Working on Buckwheat When in Bloom.

Written for the American Bee Journal

Query 673.—1. Do bees injure buckwheat when in bloom? 2. If so, how?—Sub.

No.—M. MAHIN.

No.—G. L. TINKER.

No.—H. D. CUTTING.

No.—C. C. MILLER.

No.—WILL M. BARNUM.

No, sir.—EUGENE SECOR.

No.—J. P. H. BROWN.

No.—J. M. HAMBAUGH.

No! No! NO!—G. M. DOOLITTLE.

I think not.—R. L. TAYLOR.

No. They are a benefit to it.—A. B. MASON.

1. No. 2. How? Echo answers, "How?"—DADANT & SON.

No, the bees were created for the purpose of fertilizing plants.—MRS. L. HARRISON.

Not at all, but they are a great help to it, to make it produce abundantly.—C. H. DIBBERN.

1. *No, never.* Bees are valuable to all plants on which they work.—A. J. COOK.

If encouraged, they might harvest the crop and store it. I do not think that they would injure it. They might grind it, and make it into cakes, if allowed to take it as a winter job.—J. M. SHUCK.

1. They do not; they perform a work of value in all cases, in aiding cross-fertilization. In fact, all bloom is aided, instead of being impaired, by the visits of the bees.—J. E. POND.

No. They do it good. Their visits the more perfectly fertilize the blossoms, thus causing more seed-wheat. Who is jealous, envious and ignorant in your locality?—JAMES HEDDON.

No. They are decidedly an advantage to the seeding of the plants. When I was a small boy, my father kept bees in box-hives—lots of them—and every year he would sow about one to three acres of buckwheat for his bees, and to have buckwheat-cakes for his family. Our buckwheat was as fine as ever grew out of the ground.—G. W. DEMAREE.

They not only do *not* injure it, but they are of great value in fertilizing it. It is a false idea that bees injure any bloom. They were created for the very purpose of mingling the pollen-masses, so as to make them fertile.—THE EDITOR.

Effect of Sulphur on Buckwheat Bloom.

Written for the American Bee Journal

Query 674.—Will sulphur sown on buckwheat when in bloom, cause the bees to fight each other?—Vt.

No.—M. MAHIN.

No.—C. C. MILLER.

I guess not.—R. L. TAYLOR.

Never, in my experience.—WILL M. BARNUM.

I do not know anything about it.—H. D. CUTTING.

I never heard of such a thing.—EUGENE SECOR.

I do not know. Try it, and see.—J. M. HAMBAUGH.

I have never tried it, but I should not think that it would.—J. P. H. BROWN.

Oh, dear! there is so much that *I do not know*, and this is a part of it.—A. B. MASON.

I think not. For what do you want to sow the sulphur on the buckwheat?—G. M. DOOLITTLE.

I do not know. I do not use sulphur much—and I do not want to go where they do use it.—J. M. SHUCK.

I never tried the experiment, but I can safely say, no. Bees care nothing for sulphur, as long as they are not subjected to its fumes.—G. W. DEMAREE.

I know nothing about it; but, on general principles, I should say emphatically, *No.*—A. J. COOK.

Buy a bushel of sulphur, and try it, if you have nothing else to do.—DADANT & SON.

I do not know. Who is envious, jealous and malignant in your locality?—JAMES HEDDON.

I should think that they would fight the man who put it on. Is the flour sown on the bloom, to keep away the scratches, from those who eat the cakes?—MRS. L. HARRISON.

What a question! If sulphur should be found to act on bees, as "bug juice" does on man, it may do so.—C. H. DIBBERN.

The man who could believe that bees injure buckwheat when in bloom, might easily believe that sulphur sown on buckwheat would make the bees fight.—G. L. TINKER.

I do not see why it should, but as I have never tried it, I do not know. I do know that sulphur sprinkled in and around hives does not cause fighting.—J. E. POND.

No. The fumes of burning sulphur are disastrous to bees, but we never heard that it caused them "to fight each other." As a matter of fact, it takes the "fight" all out of them, by destroying life itself. But why should sulphur be "*sown* on buckwheat?"—THE EDITOR.

Convention Notices.

☞ The annual meeting of the Vermont State Bee-Keepers' Association will be held at Burlington, Vt., on Jan. 22, 1890. J. H. LARRABEE, *Sec.*

☞ The Northern Illinois Bee-Keepers' Association will hold its annual meeting in the Supervisors' Room of the Court House, at Rockford, Ills., on Dec. 17 and 18, 1889. D. A. FULLER, *Sec.*

☞ The Cedar Valley Bee-Keepers' Association will hold its next semi-annual meeting at the office of Jerry Mosher, Waterloo, Iowa, on December 18 and 19, 1889. All interested in bees and honey are cordially invited to be present. J. J. OWENS, *Sec.*

☞ The 24th annual meeting of the Michigan State Bee-Keepers' Association, will be held at Lansing, Mich., in the Capitol Building, on Dec. 26 and 27, 1889. At that time nearly all railroads sell half fare tickets; a few railroads charge one-and-one-third fare for the round trip. Reduced hotel rates will be given at the Hudson House. All are cordially invited. H. D. CUTTING, *Sec.*

☞ The bee-keepers of Huron and Tuscola Counties will hold a joint meeting on Dec. 16, 1889, in the Union House, Concordia Hall, at Sebewaing, Huron Co., Mich. All interested are cordially invited to attend, and make this, the first meeting, a great success. There will be topics of interest to all discussed. JOHN G. KNUDINGER, *Cor. Sec.*

CORRESPONDENCE.

NEW THINGS.

How they are Viewed by One of the Rank and File.

Written for the American Bee Journal

BY DR. C. C. MILLER.

I like to see the announcement of a a new book written by a practical bee-keeper, no matter if the ideas contained in it have been partly or wholly given in print from the same pen in the weekly or monthly page, still it is pleasant to have those ideas collected in book form, ready for easy reference. So I looked eagerly for Doolittle's book, and was not disappointed to find that I was hardly willing to lay it down before I had reached the end. Even the old things in it were dressed up in such pleasant shape, that they seemed like new acquaintances, and among the new things were some intensely interesting.

I think I will be doing a favor to those who have not read the book to urge their getting it. Even for the amateur who never expects to go beyond his half dozen colonies, the book has practical value, and is not intended merely for the professional queen-breeder.

Every bee-keeper should also add the new Langstroth to his library. It has on it the stamp of practicality, as one might expect, coming from such experienced men as the Dadants. If this looks like advertising, all I have to say is, that it is gratuitous, and I think I am doing my readers a favor, just as I would to advise a friend, privately, to do something that I believe would benefit him.

You are not likely to agree to everything in these two books, but you will, in the main, and even if you disagree *in toto*, you might find benefit in knowing the thoughts and plans of good, practical men.

NEW BEE-PAPERS.

I have just received notice of a new paper to be started, having bee-keeping as at least one of its principal provinces. I always rejoice to see the announcement of a new bee-book, but I don't always rejoice at the announcement of a new bee-paper. The book is likely, no matter how poor it may be, to make some addition to my stock of knowledge, and even if it does not, it can do no harm to my already acquired possessions. On the other hand, a new paper may do some harm to that which I already have.

I am pretty sure that the papers already published are none too well sup-

ported, and I am very sure that a good many have not had support enough to keep the breath of life in them, as their deaths attest. Each one that starts up anew, whatever support it may have, is likely to take at least a little support from those already established. I suppose it would be for the interest of any one of the bee-periodicals already published, if all the rest should suspend publication, and leave a clear field for the one. On the other hand, it is for the interest of the bee-keeper to have as many *good* publications as possible. I emphasize the word *good*, and as one of the rank and file, I believe my interests would be best served if a part—perhaps the larger part—of the bee-papers in this country should cease.

I should not like to see the number limited to 1, or even 2, for I think rivalry of the right kind will give us better papers, and even if rivalry made no difference, I would rather have 2 than 1, providing both can have support enough to be good.

As I have already intimated, I would like to have as many *good* bee-papers as possible, the only question being as to how many can be well enough supported to be good. Then it takes something more than support to make a good paper. There must be brains in it, and brains of a special kind.

I wish the next man that meditates starting, might understand that if he were to step right into the place of one of the most successful publishers already established, the chances are 10 to 1 that he wouldn't have the right kind of brains to keep the thing running; and on the other hand, if he could have suddenly given to him the brain equipment of the most successful publisher in the lot, with all the experience of years belonging to it, he would find it very up-hill business to get started, in a new enterprise, and might find, for the first 2 or 3 years, that the most sumptuous fare he could afford would be rye mush and buttermilk.

Marengo, Ill.

SWARMS.

Unsealed Brood to Prevent Swarms from Decamping.

Written for the American Rural Home.

BY G. M. DOOLITTLE.

Will unsealed brood prevent swarms from leaving the hive in which they are placed? is a question I am often asked. This used to be thought a sure preventive, and many even at the present day think that if they put unsealed brood in a hive that is to be immediately occupied by a swarm, that swarm is sure to stay. However, the many reports would seem to indicate that all do not have success with the plan, for, during the past year, I have noticed no less than six different reports where bees had absconded and left such brood when placed in the hive to keep them where hived. My own experience also proves that with first or prime swarms, the placing of brood in the hive they are to be hived in, only enhances the chances of their leaving, rather than proving a preventive.

Previous to 1871 I had never clipped any of my queens' wings, and was often fearful that my new swarms might desert the hives they were placed in. During the spring of that year, I read that a frame of unsealed brood, placed in the hive at the time of hiving, was a sure preventive of the swarm's decamping. This was read with enthusiasm, as here was a plan by which my fears could be entirely removed. Consequently, when my first swarm issued, I hastened to get a frame of brood in all stages, which also contained some honey to start them in house-keeping, as we used to be told was necessary to do. They were hived about 2 o'clock p.m., and I went to bed that night, feeling that my first swarm of the season was well provided for, and would be sure to stay.

The next morning I looked at them, and went to work. At about 9 o'clock, the cry, "Bees are swarming," was heard, and upon reaching the bee-yard, my new swarm was seen going for parts unknown. My lips were bit as I thought of some proper form of sound words to vent my spite on the author of this plan of keeping swarms from absconding, while I resolved that every queen's wings in the yard should be clipped, which was done without delay.

Since that time I have frequently hived swarms, and given them brood by way of experiment, and have had many of them come out, but as their queen could not fly, of course they could not abscond. Still, probably ¾ of the swarms hived in this way stayed and worked all right, while not 1 in 20 hived without any such precaution, bothered me in attempting to leave.

Hence, my experience goes to prove that unsealed brood will not prevent swarms from leaving, but, on the contrary, makes the probability of loss greater, as I said in the start.

But, says one, "Bees ought not to leave unsealed brood." Why not? They do when they leave the parent hive in natural swarming, the brood apparently being an incentive for their leaving, for, if we take the brood away from them at about the time they are ready to swarm, it will stop their doing so.

Upon examining the hive from which this first swarm decamped, I found they had built 2 pieces of comb as large as a hand, and had built queen cells upon the frame of brood, in which the queen had deposited eggs; thus showing that they considered the conditions the same, or nearly so, as they were in the parent hive from which they had issued the previous day.

There were also nearly enough bees left with those returning from the fields, to care for this frame of brood, this also proving that bees were left behind to take care of the old colony, the same as is always done after a prime swarm issues from any hive. I therefore conclude that those who advise the giving of brood to all prime swarms, are laboring under a mistaken notion, and I advise all to go slow in trying any such plan.

Borodino, N. Y.

MISSOURI.

Report of the Recent State Bee-Keepers' Convention.

Written for the American Bee Journal

BY J. W. ROUSE.

A number of bee-keepers assembled at Higginsville, Mo., on Nov. 14, 1889, and after a temporary organization was formed, and a Constitution and By-Laws adopted, they proceeded to elect officers for the ensuing year, as follows: President, R. B. Leahy; Secretary, J. W. Rouse; Treasurer, R. G. Robertson; with five Vice-Presidents, as follows: G. P. Morton, Central Missouri; J. S. Atkins, Northwest Missouri; M. V. B. Page, Southwest Missouri; A. Singer, Southeast Missouri; and P. P. Collier, Northeast Missouri.

An essay on "The production of comb honey," by W. Z. Hutchinson, and another on "Best packages of honey for marketing purposes," from C. C. Clemons, were read and endorsed, and a vote of thanks was extended for the same.

The Mayor of Higginsville gave an appropriate address of welcome, which was appreciated. Several discussions then followed on wintering bees, and on comb and extracted honey.

It was decided that the President appoint a committee of three, to investigate whether there is a law prohibiting the adulteration of honey in this State, and if not, to memorialize the Legislature to pass a law against the manufacture or sale of adulterated extracted honey; or, if allowed to be adulterated, to mark it "adulterated," with a heavy fine, or imprisonment, for violation of the law. Messrs. L. W. Baldwin, P. Baldwin, and Geo.

Boungs were appointed on the committee.

It was voted that the convention continue for an evening session, also for the next day.

The evening session was called to order by the President, and it was decided that the next place of meeting be at Marshall, Saline Co., Mo., and that the semi-annual meeting be held in April, 1890, for two days.

The Secretary was instructed to furnish copies of the minutes to the AMERICAN BEE JOURNAL and to *Gleanings*, for publication. The rest of the sessions were spent in discussions, and interchange of thoughts on the leading topics of bee-culture, after which the convention adjourned to meet at Marshall, Mo., at the call of the executive committee.

J. W. ROUSE, *Sec.*

BEE-KEEPING.

The Importance and Development of Bee-Culture.

Read at the Wisconsin Farmer's Institute

BY JOSHUA BULL.

The honey-bee—and it is a wonderful insect—has been associated with the history of man through all the ages of the past. From time immemorial honey has been used, and highly esteemed as an article of food ; and to the ancients, no higher praise could be spoken of any country, than to say it was "a land flowing with milk and honey."

The habits of the bee have been carefully studied by many learned and scientific men, in ancient as well as modern times, and there is perhaps nothing found in the annals of natural history more interesting and wonderful than may be found in the internal affairs of a bee-hive. There is as much order and system in a bee-hive as can be found in the best regulated governments of the most enlightened and civilized nations ; yet bees are not guided by reason or logic, nor philosophy, but are actuated entirely by that wonderful endowment, "Instinct."

Bees are not given to new notions—they do things to-day just as their ancestors did a thousand years ago, and he who would succeed in bee-keeping must work in harmony with their natural habits, and aid them in every possible way as circumstances may require, and thus encourage them to more vigorous action ; but any attempt to controvert their natural impulse is sure to result in failure, and whether the act be intentional or unintentional, the result will be the same, hence the necessity of being educated for the business.

No set or fixed rules can be given for the management of bees which can be invariably followed under all circumstances to insure the desired results. The right thing to do with one colony at a given time, might not be just the right thing to do with another colony at the same time, owing to the difference in their condition and surrounding circumstances. The variation in the seasons, the changes in the weather, and the condition of the atmosphere—all have an important bearing upon the secretion of nectar in the flowers, and consequently upon the time and manner as to when and how the bees should be manipulated. There are many things involved in bee-keeping, which, to the uninitiated, are impenetrable mysteries.

To be a thorough bee-master, requires as much intelligence, forethought and skill, as to be a good lawyer, physician, or any other professional ; and withal a clear perception of the relation between cause and effect.

Some people seem inclined to believe that anybody can keep bees, thinking that all that is required is, to put them into a hive in some out-of-the-way-place, and then they will "work for nothing and board themselves"—and so they may, but if their owner desires to obtain any surplus for his own table, or for the market, he must give them further care ; and unless he has a heart for the work, so that he finds some degree of pleasure in caring for them, he had better not attempt to keep them at all, as they will only prove a source of annoyance without profit.

In short, to make a successful bee-keeper, requires a sort of special gift, a natural aptness for the business, the faculty of perceiving what needs to be done, and an inclination to do it promptly. The old Spanish adage, "Never do anything to-day which can be put off until to-morrow," does not work well in bee-keeping—it savors too much of slothfulness ; but the Anglo-Saxon maxim, "Never leave until to-morrow, anything which can as well be done to-day," will be found to be much more appropriate, being much more in harmony with the indefatigable activity of the bees. There is always a right time for doing things—not too soon, and not too late.

We are living in a progressive age—no other period in the world's history has ever been signalized by such wonderful developments in science and art as have been brought to light in this Nineteenth Century. The great labyrinth of Nature's mysteries has seemed to be set open unto men, and forces and principles which have lain dormant since the beginning of the creation, have in our days been brought forth and made subservient to the will of man, with astonishing results.

When we take a retrospective view of these things, are we not warrantable in the conclusion that the hand of God is manifested in the development of events according to the world's need ? And whilst such unparalleled progress has been made in other directions, bee-keeping has also received a share of attention ; and I feel quite safe in saying that more progress has been made in the management of bees during the latter part of this century, than during all the thousands of years of previous history.

Bee-keeping in its present stage of development is fully entitled to take rank as one of the arts ; and were it not for the variableness of the season, the changeableness of the weather, and other atmospheric conditions upon which the secretion of nectar in the flowers is so largely dependent, and upon which hinges the turning-point of success or failure, all of which are entirely beyond our control—I say, were it not for these uncertainties, then bee-keeping might very properly be classed as a science ; but inasmuch as the variation of seasons necessitates a variation in the management of the bees, therefore no set rules can be established which will work satisfactorily under all the varied circumstances that may arise ; but the judgment and skill of the apiarist needs to be constantly exercised in order to discover just what needs to be done, and when and how to do it.

There are many other matters to be attended to in a well-ordered apiary, besides taking care of the honey. Every wide-awake apiarist of these days takes as much interest (and I might say, pride) in the rearing of his queen-bees, as a good farmer does in raising fine cattle or horses ; and there are numerous apiarists who do quite an extensive business in rearing queen-bees for sale, and send them all over the country to customers, the prices ranging from one to ten dollars, and upwards, for a single queen-bee, according to her pedigree, purity of blood, etc., and whether she is home-bred or imported.

With many people a bee is a bee, and they know no difference in the breeds ; but with the advanced apiarists it is considered a matter of considerable importance. Each has his favorite breed, the same as with other stockmen. Years ago the brown German bee was the only kind kept in this country, but of late years we have imported Italian bees, Cyprian bees, Syrian bees, Holy Land bees, Carniolan bees, Syrio-Albino bees, and an endless variety of hybrids have arisen by crossing these breeds, some of

which are perhaps superior to any of the "pure-blooded" bees for real business in gathering honey and for comb-building qualities.

Bee-keeping is of late years becoming quite an important industry, the products of which are perhaps ten times greater in this country than it was 25 years ago. The modern facilities for the management of bees has induced many to engage in this pursuit, until it is now claimed that there are in round numbers 300,000 bee-keepers in the United States, and their colonies of bees are numbered by the millions, with an aggregate annual production estimated at 50,000 tons of of honey!

Some are becoming alarmed, fearing that the business is being overdone, because the supply of honey is greater than the market will take at paying prices; but we have this thought to console us, that whatever is lost to the producer in consequence of low prices, will be so much saved to the consumer, and so the account will stand even, and honey is just as sweet now as ever, all the same.

Although the manipulations of an apiary are as widely different from farm work as the practice of medicine is different from the practice of law, yet, nevertheless, a few bees in the neighborhood are a real benefit to every farmer or fruit-grower, because the bees evidently perform a very important part in the fertilization of the blossoms of fruit-bearing trees and seed-bearing plants, by mixing the pollen-dust with the stigma of the flowers, when in their search for honey, thereby causing more abundant fruitage. Therefore, let the farmer, the fruit-grower and the bee-keeper live in harmony and good-will, for that which promotes the interest of one, will promote the interest of all. Give the bees a chance.

The bees are busy things you know,
And when there comes a honey-flow
You see them hurry to and fro,
  So quick and fast;
From very early morning light,
They spend each day in busy flight,
And they never sleep by night
  Till the harvest's past.

They do their work with eager haste—
Allow no time to run to waste;
Their honey hath delicious taste,
  As each one knows.
There's a great deal more that might be said,
But if I spin a lengthy thread,
You have not time to hear it read—
  So hear I close.

Seymour, Wis.

Subscribers who do not receive this paper promptly, will please notify us at once.

BEE-WOMEN.

The Duties and Characteristics of a Bee-Keeper's Wife.

Written for the American Bee Journal
BY REV. STEPHEN ROESE.

The following is a translation of an article written for *Der Bienen-Vater aus Bochmen*, by Mrs. Regina Stiller, the wife of a high-school teacher in Monchsdorf, Germany:

It seems daring to me, to appear before the bee-keeping public—however it is nothing strange, for I have read many articles in bee-papers written by a woman's hand, and I have also heard of many prominent and successful lady bee-keepers, from all over the land; not claiming to be talented, or worthy to be numbered among the last-named class, yet I feel a longing desire to become skilled, and thoroughly informed in the art of bee-keeping—for one reason, that the necessary absence of my husband might be substituted in my person, and, for another reason, because I take so great pleasure in the industry and doings of the honey-bee; and as I am a most needed companion and help to my husband in our home apiary, I take liberty in pointing out some of the duties of a bee-keeper's wife; and the reason why I speak of the duties of the wife, and not of the woman, is, that I much prefer to be the wife of my husband, than the woman of a lord.

The beauty and adorning graces of a true wife, especially the help-meet of a bee-keeper, consist chiefly in a consistent life and walk, coupled with a sweet temper, good-will, kindness, and gentleness towards her husband. Bee-keepers' wives, be modest in all your demands on your husband, in regard to dressing; shun all excess of fashion, and vain pride, which so often, and not without reason, are lamentable evils of the female sex, and are not becoming to the wife of a bee-keeper, for very few of the many apiarists in our days, have great riches as their portion in this world.

Be modest in your demands for the kitchen; be content, resigned, and reconciled to your various circumstances of life brought about by your marriage union with your husband; to murmur, complain, and find fault is foolish and unjust, because the circumstances of your husband before marriage were fully known to you: aim rather by careful study in various ways, to make home the sunniest spot on earth, and in so doing, with a soft answer, you will smother many ill words, and bad temper in its very bud of development, and win your husband's confidence and affection for your future days, thus wiping away the wrinkles on your companion's forehead, which life's burdens may have deeply impressed.

On various occasions take him to the apiary; make a comparison of the honey-bee—no matter what calamity, storms, and rough-and-tumble may befall this industrious insect, it will always with renewed energy go to work again, and forget the past; and be assured that the dark clouds on your husband's forehead, and sad look, will disappear, and a silent press of his hand will be a token of his tender feelings, great fulness, and a husband's love towards you; for it is a fact, that by your ready assistance in the apiary, work will move on twice as fast as if one must do all the running and tinkering, and questions put to your husband concerning the various branches in apiculture, will by him be answered with pleasure, for the increase of your knowledge in bee-keeping.

It requires energy and enterprise to work among the bees, but such you will get during practice; and do not fear that you might sacrifice any of your womanly dignities, for the word "womanlike" would never have come into existence, had our sex on all occasions manifested more stability of mind, energy, and ambition.

In leisure hours, which often are spent in reading horrifying and sensational novels, or at the gossiping coffee and tea parties so much in practice by our sex, rather go to the library of your husband, and select a book on bee-keeping, inform yourself, and master this art to perfection. Bring your theories into practice, and surely your husband will present you with a colony of bees as your own, which you may care for yourself, and in due time become master of the situation. How your husband will rejoice, when you will have so far advanced in caring for bees that he can entrust to your care the whole apiary; and how much money then will be saved, which otherwise would have to be spent on hired help; and I will add further, if the words spoken will be heeded, the bee-keeper's home and life will be illuminated with smiles and sunshine to promote joy and peace.

MRS. REGINA STILLER.

INDIANA.

Awards on Honey and Bees at State Fairs.

Written for the American Bee Journal
BY R. S. RUSSELL.

At our State Fair I received over $40 in premiums on my exhibits, and Mr. Zimmerman, of Wabash, about the same amount. Julius Moesch, of In-

dianapoiis, also had a very fine exhibit of honey-plants, honey, and queens and drones, and gained the 1st premium on honey-plants. Owing to our State Board understanding so little about apiculture, or being so little interested in the industry, only $5 was offered on queens. The 1st premium, $3.00, was awarded to a beautiful golden Italian queen, and the 2nd, $2.00, was given to a very large Carniolan queen, both of my own rearing.

I wonder how many stockmen want to go to a State Fair with fine stock, if the list would read after the style of the apicultural list—in this wise:

Best cow, $5.00, 2nd best, $2.00: best hog, $3.00, 2nd best, $1.50; best sheep, $3.00, 2nd best, $2.00; best goose, $2.00, 2nd best, $1.00; best hen, $2.00, 2nd best, $1.00; best queen, $2.00, 2nd best, $1.00.

My impression is, that they would have plenty of entry pens and but little gate money. But we must pour the "grape and canister" into the hard-shelled State Boards until they learn that there is more than one variety of bees, and that apiculture is as honorable a pursuit as pig-raising, chicken-raising, or horticulture, and demands the same fostering and honors from the State.

I will suggest that the first step to be taken, is to adopt a standard premium-list, such as will give all varieties of bees an equal show, as well as all implements and honey products; but the bee-keepers must first be in line with the list demanded, and then educate these State Boards up to this line. We must send committees from our State bee-keepers' associations, with the prayers of our brethren, demanding reasonable premiums on our products—such as will arouse competition from its slumbers. Then only may we expect to save the 10,000 pounds of nice honey that is annually lost on every square mile of our territory, for want of bees to save it.

Zionsville, Ind.

SOMETHING NEW.

A Queen-Rearing Hive and Frames Described.

Written for the American Bee Journal

BY E. L. PRATT.

I send two engravings which will be used in my little book, entitled, "A New System of Queen-Rearing in Combination with Full Colonies and Standard Hives."

The reader will notice by the engraving that the fertilizing hives are of the small nuclei type, but very different from any other, inasmuch as the frames are entirely exposed when the hive is opened, making quick work in all operation.

The frames are of the standard size, 4¼x4¼, 12 to the foot section-boxes, closed all around. These can be filled into standard-hive frames, as well as with wide frames for comb honey, and drawn upon for bees, brood, honey, etc., at will. One ten-frame hive will contain section frames enough to stock

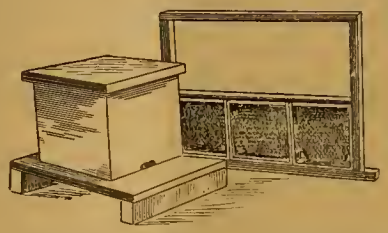


Fig. 1—Hive Closed, and Frame.

20 nuclei—a great saving to a large queen-breeder.

The hive body is a cap (as it were) made very light, yet perfectly tight, thus guarding against robbing, dampness, moldy combs, etc.

Engraving No. 1 represents the small hive closed, with a large frame half filled with small frames standing beside it.

Engraving No. 2 shows the inside paraphernalia, with the cap thrown to one side.

The time required to equip a pair of these hives with bees, brood, honey and cells, is about one minute.

The doubling-up process in the fall does not have any of that drudgery

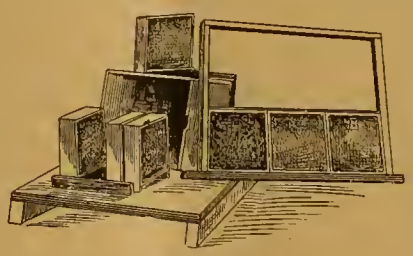


Fig. 2—Hive Paraphernalia.

connected with most nuclei plans; it can be done by single hives or by wholesale. There are no queens or nuclei around to attract robber bees—no waiting for brood to hatch out, and no watching is required.

All will see the advantage of this new plan when they read the book, in which everything is explained very clearly. I give a method for the honey-producer that does not conflict at all with the production of honey. The book will be thoroughly illustrated, and well printed.

A reporter for the Boston *Globe* called on me, and it published a long article from which the following excerpt is taken:

"*The Globe* man yesterday inspected the colonies of bees of Eugene L. Pratt, who is a breeder of queen-bees. He does not keep bees for honey, but is a breeder of fancy stock, to which he gives as much time and attention as if he was breeding blooded and thoroughbred stock of greater dimensions. He is an enthusiastic disciple of apiculture, and from him was gained many points of interest concerning the breeding of these little insects.

"Mr. Pratt winters about 40 colonies, and in the summer increases to about 125, all for queen-rearing. The average price for a queen-bee is $1.00, and the price ranges as high as $10.00. Mr. Pratt has one breeding-queen for which he says he would not take $100. The difference in price is caused by the development of good points, the same as the prices of horses differ for that same reason. This particular queen will have its life prolonged a year or more by keeping her with a small colony. She is capable of depositing about 3,000 eggs per day, but by scientific methods, and by having her reign over but a small colony, she will lay but about 300 eggs *per diem*.

"Mr. Pratt breeds from a race of bees which is comparatively new to this country, and is known as the 'Carniolan race,' which comes from the province of Carniola, Austria. They come from a valley which is surrounded by high mountains. It is very cold there, and there is little vegetation. For centuries this race of bees has been in existence there, and is now considered the most hardy, prolific and gentle in the world.

"For three generations the Pratts have reared bees, and Eugene becomes naturally enough an enthusiast on the bee-question. Of this particular race of bees there are but four breeders in this country, and he is the largest in point of product."

Marlboro, Mass.

FLORIDA.

Bee-Keeping in Florida—Cloth-Base Foundation.

Written for the American Bee Journal

BY JOHN CRAYCRAFT.

I have changed my location to St. Francis, Fla., so that I can be near my bees, and with the help of my son, Fred L., who is a practical bee-keeper, we will make a specialty of bee-keeping, believing and knowing from our observation, that we have one of the best locations in Florida, all things considered, for the production of first-

class honey; and are favorably situated for transportation.

Our bees will be located along the banks of the St. Johns river, opposite Deland, Volusia Co., Fla. We will take the bees to the orange groves along the river, at their blooming, and take them back to their permanent locations, near the hammocks and swamps, where some of the finest honey known is gathered—the wild grape (a sample of which I sent you). We have orange blossom, the grape, and palmetto honey, all of the very best, each of which is very easily separated from other honey, and all can be placed in the markets in the North before their crop is gathered.

Our bees are storing surplus honey yet; and we extracted from the upper stories of many of the hives the past week, getting a very fair honey, gathered from the blue aster, golden-rod, and smart-weed. The river swamps are full of bloom, and will be until we have frost. There has been none here yet, the coldest being 44 degrees above zero, and if the cool weather keeps off much longer, we will not be in much danger of weak colonies to get ready for the orange bloom the last of February.

To have the hives full of bees, ready for the harvest, we will give them a little stimulant of honey, commencing the first week of January, and continuing until we have both stories of the hives full of brood and bees. The secret of success is to have laborers when the harvest is ready.

CLOTH-MADE FOUNDATION.

I think that there will be some new developments made in comb foundation soon, that will make the handling of combs and their shipment safe, with no such things as broken combs—all straight, no sagging, and one can turn in a swarm on the foundation and rest assured that there will be no breaking down, yet all be straight and full at tops, ends, and bottoms of the frames.

How will all this be done? Very easily—use cloth-made comb foundation, which is made as follows:

Take fine, close-cotton unbleached muslin, dip it in the melted wax (the same as is used for foundation) a sufficient number of times to coat it well, so as to make it about the thickness of the plain sheets of wax; then pass it through the mill the same as the wax sheets, and you have a foundation that will be all that could be desired.

The cloth can be cut into long strips, and passed through the wax the same as wire-netting is coated with the metal. I will have this comb practically tested by the bees here in a short time. I know of no reason why it will not work. We will see what the manufacturer will say about it, as he has made me a sample of it to test in the hives here.

I have made application for a patent upon such comb foundation, using any cloth, paper, wire-netting, or any coated material forming a base, and then putting it through the foundation mill. I claim to be the originator of such comb foundation, and would like to have the credit, even if I should never make a great profit from it.

St. Francis, Fla.

[The sample of honey from wild grapes came to hand, and is very pleasant to the taste. It is light amber colored, and of thick body.

In making comb foundation, paper, cloth, straw boards, and thin wood have all been used—but all have been objectionable, and nothing has been so successful as the plain wax sheets put through the mill for configurations. The trouble with the muslin is that the bees will pull out the threads.—ED.]

CONVENTION DIRECTORY.

1889.	*Time and Place of Meeting.*
Dec. 17, 18.—	Northern Illinois, at Rockford, Ills. D. A. Fuller, Sec., Cherry Valley, Ills.
Dec. 16.—	Huron & Tuscola Co's., at Sebewaing, Mich. J. G. Knudinger, Cor. Sec., Kilmanagh, Mich.
Dec. 26, 27.—	Michigan State, at Lansing, Mich. H. D. Cutting, Sec., Clinton, Mich.
1890.	
Jan. 22.—	Vermont State, at Burlington, Vt. J. H. Larrabee, Sec., Larrabee's Point, Vt.
May 2.—	Susquehanna Co., at Hophottom, Pa. H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

But Little Feeding Necessary.

Bees did fairly well in this section the past season. From my 40 colonies, spring count, I took over 2,000 full sections of comb honey. Some colonies were quite weak early, and I strengthened them and increased my apiary to 55 colonies, which are all in good condition now. I have had to feed the least this fall, of any in the six years that I have kept bees. The coldest weather we have experienced in this vicinity this fall occurred on last Friday night, the mercury reaching 12 degrees, Fahr., above zero. I hope for a good season next year. CLARENCE W. WILKINS.

Cortland, N. Y., Nov. 18, 1889.

New View of the Almanac.

The Honey Almanac for 1890 is at hand, and while we are much pleased with it, and think that it will be a great help to many bee-keepers to find a market for their honey, we have no use for more than the copy sent to us. Here we have been working almost night and day, packing and shipping honey, and trying to see daylight through the orders ahead, and more constantly coming in; when here you come with your Almanac to boom our honey trade! Great Scott! Do you want to work us to death? Just think of it, here we are trying to get out an order of 50 cases of honey, with a number more awaiting our immediate attention; and had we sent out a few hundred Honey Almanacs, here would come a great crowd, with pots and pans, for honey in all kinds of shapes. Why, we would be out of stock in just no time, and then we would have to increase our apiary, and hire more help, and build a bigger honey-house, and there is no telling where the end would be. No, sir; we have no use for any Almanacs to boom our honey business. Some extracting bee-keepers may need them, but we don't. Our honey sells at sight. C. H. DIBBERN & SON.

Milan, Ills., Nov. 21, 1889.

[We are glad to hear that there is one bee-keeper who is not looking for a market for his honey; but Messrs. Dibberns' remarks in regard to the Honey Almanac are just as favorable to the necessity of the use of the Almanacs in selling honey, as though they intended to scatter several thousands of them. If we could succeed, through urging the free employment of the Almanacs, in having *all* bee-keepers overworked in filling orders for their honey, we would be very willing to labor day and night, if necessary, in order to bring it about. Let every producer of honey try this means of advertising his honey, and at the same time place in the hands of his customers such knowledge as will lead to the constant use of our delicious and health-giving product. —ED.]

Spraying Fruit Trees Needless.

On page 691 is an article on "Spraying fruit trees," to prevent the curculio from damaging the plum crop. I have a simple, easy and sure remedy to prevent the curculio, without using any poison, or the trouble of the spray. Tell the Green Nursery Company, and the rest of mankind, that all they have to do is to take a yarn string and saturate it well with spirits of turpentine, and tie it around the plum tree, about 2 or 3 feet high, or below the limbs; and as the curculio crawl up the tree, they are stopped by the yarn string, and turn back—they will not cross it. This has been tested to perfection, and never fails. This is valuable information for all fruit-growers. PETER BRICKEY.

Lawrenceburg, Ky.

Fogy Bee-Keepers—Golden-Rod.

I prize the BEE JOURNAL very highly, and think that it should be found upon every one's table, who is at all interested in bee-culture. I have been engaged in the care of bees for about eight years, gradually adding to my stock, as my capacity for taking care of bees increased, until I now have 53 colonies in good condition for the approaching winter. During the season just past I harvested 1,200 pounds of extracted honey, and 100 pounds of comb honey—all from white clover. The comb honey was stored in one and two pound sections. I find that one-pound sections are preferable in market. I have a good local market for my extracted honey, at 12½ cents per pound, though I have some difficulty with a few old fogies who hive bees in soap-

boxes, cracker-boxes, and nail-kegs, and then croak about extracted honey being mixed with sugar! They seem to think that as soon as honey is extracted from the comb by machinery, it ceases to be honey. There is a man living near this place that owns over 100 colonies, who is so full of envy, and so thoroughly impregnated with ignorance, that he will not look at an extractor. This man brought his broken combs to market in buckets, and sold it at 12½ cents per pound, so I was compelled to sell my nice comb honey for the same price.

Our main dependence for honey is white clover and the asters. The golden-rod grows in abundance in this county (Macoupin), but it is of no value as a honey-plant. Bees do not work on it.

LODOWICK D. HENDERSON.

Staunton, Ills., Nov. 26, 1889.

Golden-Rod Honey.

Golden-rod honey is of an amber color, and very thick. There are acres of golden-rod on the bottom lands in Illinois and Missouri, and the bee-keeper that looks after his bees, can discover it the last of August or the middle of September, by the strong smell, but as sweet as honey itself. When bees are getting golden-rod honey, the bee-keeper will not need to watch them ten years, either; but as there are lots of bee-men who keep bees that cannot tell golden-rod honey from basswood, or buckwheat honey from clover, there will always be some difference of opinion in regard to color. For my part, I do not believe that bees gather dark honey from golden-rod, no more than the milkman can get dark milk from a white cow. Let us hear from the bee-keepers of the Illinois and Missouri bottom lands, and see what they have to say on the color of the golden-rod honey.

As for the national flower, I think that the sweet potato would get as many votes as the sweet pea. JOHN BOERSTLER.

Vashon, Wash. Ter., Nov. 20, 1889.

Packing Bees for Winter.

I have been experimenting with bees for ten years, and have always made such a miserable failure on account of wintering them out-doors; so this fall I had a lot of old coal-oil barrels, that had been used for water barrels; also some sugar barrels, which can be bought for 10 cents each at any grocery store. I found that by removing both the hive-cover and honey-board from the Simplicity or the Langstroth hive, they would go into these barrels, some of which I sawed off 2 inches. I used burlap over the frames, slipped the hive into the barrel, packed well with chaff, and tacked four little pieces of boards around the edges of the barrel, to keep out mice. Thus I have a complete chaff hive for 10 cents. I claim no patent on this, but if anybody can construct a better hive for less money, I would be glad to hear of it.

B. G. MCPHERSON.

Clayton, Ills., Nov. 24, 1889.

Alfalfa as a Honey-Plant.

I notice that some bee-keepers say that alfalfa is a great honey-plant. It is a clover, without doubt. I have some growing in my bee-yard; it has been there several years. It grows up early and large, and blossoms freely, as the ground is moist and fertile. All that time I have had no less than 100 colonies of bees (Italians and natives), yet I have never seen a bee working upon the alfalfa blossoms, when at the same time they would be just swarming on the Alsike clover. D. F. LASHIER.

Hooper, N. Y., Nov. 24, 1889.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

☞ Read our Book Premium offer on the last page of this JOURNAL.

☞ Money in Potatoes, by Mr. Joseph Greiner. Price, 25 cents, postpaid. For sale at this office.

☞ Send us one **NEW** subscriber, with $1.00, and we will present you with a nice Pocket Dictionary.

☞ Red Labels are nice for Pails which hold from 1 to 10 lbs. of honey. Price $1.00 per hundred, with name and address printed. Sample free.

☞ Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul brood, can be procured at this office at 25 cents per ounce, by express.

☞ The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to advance that date another year.

☞ Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

☞ We have some full sets of the BEE JOURNAL for 1889, and *new* subscribers can have the full sets for 1889 and 1890 for $1.80 until all are gone. Or, we will send the full sets for 1887, 1888, 1889 and 1890 for $3.00.

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☞ We offer the Monthly Philadelphia *Farm Journal*, and either the AMERICAN BEE JOURNAL or ILLUSTRATED HOME JOURNAL from now until Dec. 31, 1890, for $1.20. Or, we will *give it free* for one year to any one who will send us *one new* subscriber for either of our Journals with $1.00 (the subscription price).

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This Honey Almanac places in the hands of bee-keepers a powerful lever to revolutionize public sentiment, and create a market for honey, by making a demand for it in every locality in America.

Each alternate page is an illustrated calendar for the month—making a complete Almanac for the year 1890.

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The Honey Almanac is received. Have been quite agreeably surprised with its true value, to the producers of honey. Both contents and appearance do credit to its publisher.—W. M. Barnum, Angelica, N. Y.

The Honey Almanac is uniquely tidy, and compact in its general make-up, and replete with useful recipes and valuable information. A copy thereof ought to be placed in every household.—Joshua Bull, Seymour, Wis.

The Honey Almanac is a very good one. Anything that calls attention to the great value of honey must help its consumption. —Emerson T. Abbott, St. Joseph, Mo.

The Honey Almanac is at hand. It is unquestionably the most useful and attractive scheme yet introduced for advertising the sale of honey.—F. A. Huntley, South Omaha, Neb.

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The Honey Almanac for 1890 contains the usual calendar, and some 20 extra pages are filled with interesting facts and figures, and suggestions concerning the uses of honey for food, beverages, cooking, medicines, cosmetics, etc. Beeswax, its uses, how to render it, and its importance as a commercial product are described, and many useful recipes are given. If these are distributed plentifully throughout the country, they should assist very much in educating the masses as to the use of honey, and thereby largely increase the sale of this product.—*Canadian Bee Journal.*

Its 32 pages are filled with interesting facts, figures and suggestions concerning the uses of Honey for Food, Beverages, Cooking, Medicines, Cosmetics, Vinegar, etc. Also, its effects on the human system are tersely noted; a brief refutation is given of the Wiley lie about manufactured comb honey; a short dissertation sets forth the mission of bees in fertilizing the flowers, and increasing the fruit product. Instead of being an injury to fruit, bees are the fruit-growers' best friends.

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Doolittle on Queen-Rearing.

Queens can be reared in the upper stories of hives used for extracted honey, where a queen-excluding honey-board is used, which are as good, if not superior, to Queens reared by any other process; and that, too, while the old Queen is doing duty below, just the same as though Queens were not being reared above. This is a fact, though it is not generally known.

If you desire to know how this can be done—how to have Queens fertilized in upper stories, while the old Queen is laying below—how you may *safely introduce* any Queen, at any time of the year when bees may fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing;" a book of 170 pages, which is nicely bound in cloth, and as interesting as any story. Price, $1.00.

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By a special arrangement, we can offer a MEMBERSHIP Ticket for 1890 to any one sending us two new subscribers for the AMERICAN BEE JOURNAL or ILLUSTRATED HOME JOURNAL, for one year, with $2.00.

Essays on Extracted Honey.

We offer Cash PRIZES for the best essays on "Extracted Honey," each essay not to exceed 2,000 words in length, and must be received at this office before Jan. 1, 1890. The first prize is $5.00; the second, $3.00; and the third, $2.00. All essays received on this offer will become the property of the AMERICAN BEE JOURNAL, and is open for competition to its subscribers only.

☞ We want these numbers of the BEE JOURNAL, viz: December, 1875, January to June, 1876, and April 30, 1884. Also No. 18, of 1884: and Nos. 2, 17, 18, 19, 20, 21, 32, 42, 44, and 48, of 1885. If any one desires to sell them—please state price. Do not send any numbers until we order them, for we only want one copy of each.

☞ W. D. Soper, of Jackson, Mich., has his new Catalogue of Bee-Keepers' Supplies for 1890 on our desk at this early day.

Honey and Beeswax Market.

DETROIT.

HONEY.—Demand is fair for comb at 13@15c. per lb. There is more dark honey than light. Extracted, 8@9c.
BEE-WAX.—24@25c.
Nov. 11. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—Receipts of comb are averaging about as they usually do with a fair crop. Prices rule at 13@14c. for choice to fancy 1-lbs., which comprise the bulk of the receipts, very little in sections averaging 1½ 2 lbs., and sells at 10@12½c.; dark, 8@10c Extracted, 6@8c.
BEESWAX.—25c.
Nov. 8. R. A. BURNETT, 161 South Water St.

KANSAS CITY.

HONEY.—Fancy white 1-lbs., 14c.; good, 13c.; dark 11c.; white 2-lbs., 13c. Extracted, white, 7c.; dark, 6c Demand good.
Nov. 11. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—1-lb. comb, 15@18c. Extracted, 7@8c.
BEESWAX.—20@25c.
Nov. 11. J. M. CLARK COM. CO., 1421 15th St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 14@15c.; 2nd grade white 1-lbs., 13@14c; old dark 1-lbs., 10c.; new, 10@11c. Extracted, white, in barrels and kegs, 7@8c.; in tins and pails, 8@8½c.; dark, in barrels, 6@6½c.; in kegs, 6@7c. Demand steady.
BEESWAX.—22@23c.
Nov. 11. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—Extracted, white clover, basswood, orange blossom and California, 8c.; buckwheat, 6 cts.; common Southern, 65@70c. per gallon. Demand is good Comb honey, fancy white 1-lbs., 16c.; 2-lbs., 14c. Fair 1-lbs., 14c; 2-lbs., 11@12c. Buckwheat, 1-lbs., 11@12c.; 2-lbs., 10@11c. Demand very good for fancy white 1-lbs., and buckwheat 1-lbs.
BEESWAX.—22c.
Oct. 2. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—Demand for white clover 1-lbs. is improving, but price depends upon size and style of package, condition and appearance when received, ranging from 12@13½c.; basswood, 11@11½c.; buckwheat, 8@10c. Extracted, 6½@7½c., depending upon style and size of package.
BEESWAX.—27@28c.
Nov. 9. S. T. FISH & CO., 189 S. Water St.

NEW YORK.

HONEY.—Demand fair. Western honey arriving freely, and prices declining. We quote: Fancy white 1-lbs., 14@15c.; 2-lbs., 12@13c.; off grades and mixed 10@12c.; buckwheat 1-lbs., 10@11c.; 2-lbs., 9c. Extracted white clover and basswood, 7½c.; orange bloom, 8½c.; California, 7½c.; buckwheat, 6 cents; Southern 70@75c. per gallon.
HILDRETH BROS. & SEGELKEN,
Nov. 6. 28 & 30 W. Broadway, near Duane St.

BOSTON

HONEY.—It is selling a little slow. Fancy white 1-lbs., 16@17c.; common, 15@16c. Extracted, 8@9c.
BEESWAX.—24c.
Nov. 27. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—A large amount of Comb on the mardet at 14@16c for best white. Extracted at 5@8c.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Nov. 22. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—Selling slowly, especially extracted, on account of mild weather. White 1-lbs., 13@14c.; dark 10@12c.; white 2-lbs. 12@13c.; dark, 10@12c. Extracted, white, 7@8c.; dark, 5@6c.
BEESWAX.—22c.
Nov. 22. CLEMONS, CLOON & CO., cor 4th & Walnut.

☞ Please notice our latest Premiums for getting new Subscribers, on page 751 of this issue. It will pay every reader to endeavor to procure new subscribers for us. We ought to get thousands of new readers during the next two months.

☞ We will send both the BEE JOURNAL and HOME JOURNAL from now until the end of 1890 for $1.75. The Christmas number of the HOME JOURNAL contains Christmas stories, poems and illustrations. Send early and get that number.

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Bee-Keepers' Review.....	1 50...	1 40
The Apiculturist	1 75....	1 65
Bee-Keepers' Advance	1 50....	1 40
Canadian Bee Journal	2 00 ...	1 80
Canadian Honey Producer...	1 40....	1 30
The 8 above-named papers..	5 65....	5 00
and Langstroth Revised (Dadant).	3 00. ..	2 75
Cook's Manual (1887 **edition**)	2 25...	2 00
Doolittle on Queen-Rearing..	2 00....	1 75
Bees and Honey (Newman)...	2 00....	1 75
Binder for Am. Bee Journal..	1 60....	1 50
Dzierzon's Bee-Book (cloth)...	3 00....	2 00
Root's A B C of Bee-Culture..	2 25....	2 10
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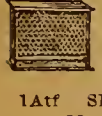

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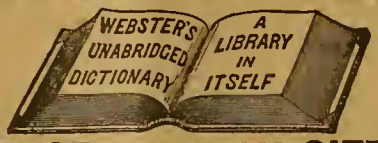

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ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

OLDEST BEE-PAPER IN AMERICA

Premium-List Supplement.

VOL. XXV. CHICAGO, ILLS., DECEMBER 7, 1889. No. 49.

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Please Read this Page Carefully.

Preserve this Supplement.—We shall not have room in our JOURNALS to republish much of the contents of this Supplement, so you will please preserve it for future reference. We can furnish every Premium in it, from now until the end of the year 1890.

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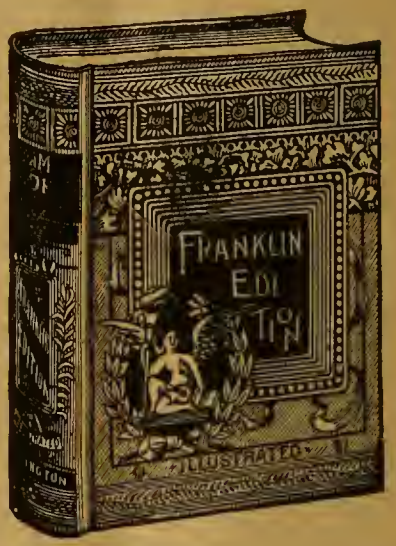

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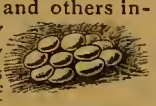

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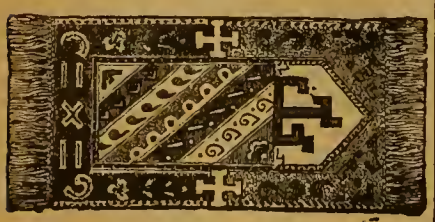

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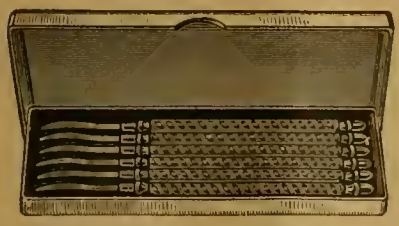

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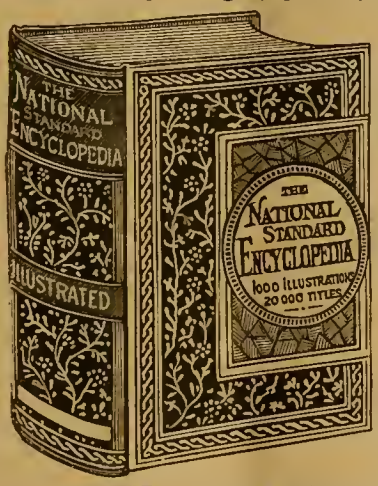

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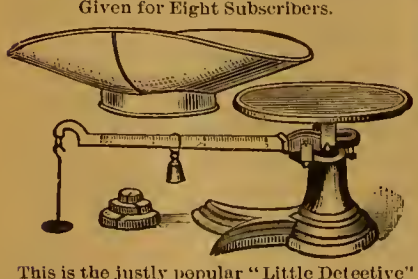

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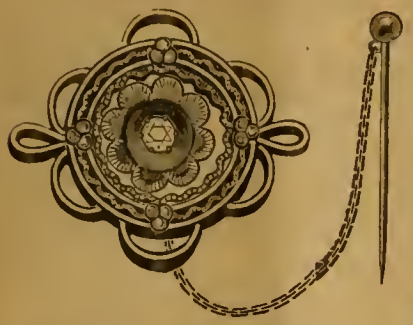

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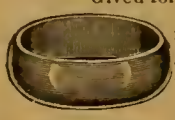

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And contains clock-work, main-spring, and Fan Regulator, so arranged that the instant a penny or nickel is pushed through the slot in the Bank, the clock-work causes the small boy to **Ring the Bell**, while **Johnnie Green** on the fence **Waves His Hat**, and at the same time

Jacky Stout Takes the Cat from the Well,

The whole performance lasting one-half minute.

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Because the bottom part is a coin safe, into which the pennies drop after having started the performers. It has a metal door, with post-office lock and key, so all money put in is in safe keeping for its owner. It is **not** a single quick motion like that of the common trick banks, but is a very comical performance, lasting half a minute. It is excellent for use at fairs and other entertainments to catch pennies. Each bank is carefully packed in a wooden box, with full directions.

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For $2.00, we send one copy of either, **Crime of the Century (Dr. Cronin's Murder)**, **Little Giant Encyclopedia**, or **Ideal Cookery Book**—Illustrated and bound, price, $1.50 each—One year's subscription to American Bee Journal, or Illustrated Home Journal, price, $1.00 per year—Membership Certificate for 1 year from date of issue, price, $1.00 per year—total, $3.50.

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This richly-decorated Breakfast and Tea Set contains **56** pieces, modern and artistic, and makes a handsome table display The set consists of the following, 12 tea plates (usual size), 12 tea cups, handled, 12 saucers to match, a tea-pot and cover, slop bowl, bread plate, cake plate, cream pitcher, sugar bowl and cover and 12 sauce dishes. Price, $10 by express or freight, or given for 10 subscribers and $5 extra in cash.

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This Decorated Toilet-Set contains 10 pieces. The decorations are in colors, with gold edges and bands. They are doubly fired, and are thoroughly made and finished in every respect. Each set contains ewer or pitcher basin, covered chamber, brush vase, covered soap-dish with drainer, handled drinking mug and pitcher. Price, $7.50 by express or freight; or given for 10 subscribers with $2.50 extra.

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Given for 8 Subscribers.

This has a best Para Rubber Holder, with No. 3 long nib, 16 Karat Gold Pen, box, filler and directions. Price, $3 00.

Silver Knives, Forks and Spoons.

These are Rogers' celebrated extra-plated ware, and are offered thus by mail, postpaid:

6 tea-spoons given for 4 Subscribers
6 forks " 8 "
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Or, ALL of the above (20 pieces) given for **20** subscribers.

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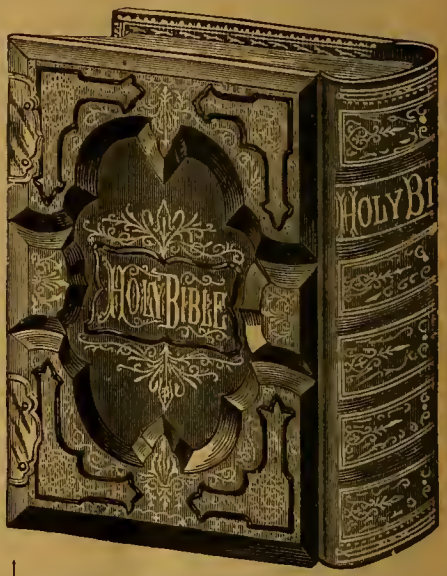
The Knife is 9 inches long, stag handle, and Spanish blade. Price, $4.00 for the set; by mail, $4.15

Beautiful Family Bible.

Given for Fifteen Subscribers.



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This Watch has a solid-nickel open-face case, with Swiss stem-wind movement. Price, $3.00, complete, by mail. Address,

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Dec. 14, 1889. No. 50.

EDITORIAL BUZZINGS.

The Bee went a courting
My Lady, the fly;
Said the Bee to my Lady,
"For you I would die."

Said sweet Lady Fly,
As she blushed 'neath her wing,
"I love your soft words,
But I hear that you sting."

☞ The *Canadian Honey Producer* bows itself out of existence with the December number—having existed three years. It was well conducted, and leaves many pleasant memories.

☞ The International Convention was held in Brantford last week. We were unable to be present, but our representative, Mr. W. Z. Hutchinson, took a stenographic report for us, and will write it out in time for our next issue. The new officers are :

President—R. L. Taylor, Lapeer, Mich.
First Vice Pres.—Eugene Secor, Forest City, Iowa.
Secretary—C. P. Dadant, Hamilton, Ills.
Treasurer—Dr. C. C. Miller, Marengo, Ills.
The next meeting will be at Keokuk, Iowa.

☞ The Third Congress of the Central Society of apiarists of Germany was held at Stettin, last September. There was a magnificent exhibition of honey, and a *fete*, which had more than 700 visitors—as we see by the *Bienen Zuechter*.

☞ Dr. Dzierzon, who is now 79 years of age, attended the late Congress of German and Austrian bee-keepers at Ratisboune, in Bavaria. The Baroness of Berlepsch, Carl Gatter, Prof. Kunnen, of Luxembourg, Baron Ambrozy, and many other distinguished apiarists were also in attendance. This was the 34th annual meeting.

Not the "National."

In the last issue of the *Apiculturist* we find this item:

We see it hinted in some of our exchanges that a National Bee-Keepers' Convention has been held somewhere in the Western States. It must have been a very quiet affair, it seems to us, or more noise would result from it. The AMERICAN BEE JOURNAL, which, we believe, is the *official organ* of the National Convention, has said very little about the meeting, and what it did say was in reference to the fun the local papers made over the whole affair.

Well, who objects to those worthy gentlemen, though few in numbers, meeting in convention once a year to discuss the great problems connected with bee-keeping? No real injury can come from it, and some good may be accomplished. Whether they continue or not to meet, we believe the seasons will be alternately favorable and unfavorable, just the same, during the honey harvest.

Surely, the editor of the *Apiculturist* has been asleep for some months. The Convention he mentions, of which the "local papers made fun," was the "Northwestern," held at Chicago last October, and a full report of it may be read in the AMERICAN BEE JOURNAL for Oct. 26, 1889. It is a pity Bro. Alley missed the the reading of that report. We have now mailed an extra copy, marked, for his perusal. It was *not* a "very quiet affair," but a really lively, old-fashioned meeting.

Bro. Alley errs also in his statement that the AMERICAN BEE JOURNAL is the "official organ of the National Convention." It is not, and never has been an "official organ" of any Society. It is an *independent* Journal—independent of persons or cliques!

The *irony* of the last paragraph is harmless—a mere "pleasantry"—for no one else ever thought of such a thing as "the National Bee-Keepers' Convention" (or any other National or International Convention) being a "real injury" to bee-keeping. No one who attends them, or reads their reports, so regards them. Wake up, Bro. Alley, and keep posted.

☞ Some have requested us to print a card on a less number than 100 Honey Almanacs, and we have concluded to accommodate them. We will furnish 25 copies with card printed on the first page, **postpaid**, for $1.10; 50 copies for $1.70; 75 copies for $2.30. President Mason, in his address at Brantford, said:

At least one copy of the Honey Almanac should be in the house of every family in Canada and the United States, and it rests with bee-keepers to see that such is the case.

See prices for more on the next page.

☞ A neat programme of the 20th annual convention of the "International American Bee-Association," at Brantford, was gotten up by Secretary Holtermann. It is a credit to the Society.

Clubs of 5 for $4.00, to any addresses. Ten for $7.50, if all are sent at one time.

A Full Crop—Percentages.

Much confusion prevails on account of those who report their crops of honey, misapprehending what constitutes a full crop, or percentages. The Indiana *Farmer* makes these remarks on the subject:

Bee-keepers are interested in knowing what a full yield of honey is. Statistics are usually made up in percentage of a full yield. But confusion always happens when people make statements calculated from different bases.

The common basis is 100 per cent., and this should mean a full yield of whatever the crop may be. One hundred pounds of honey per hive is generally accepted as a full yield, and if this is taken as a standard, then every one interested knows what a 50 or 60 per cent. yield will be.

A number of prominent bee-keepers who have reported the yields for the past season, give them as follows: 32,000 pounds per 300 colonies, or 107 to the average; 20,000 pounds per 350 colonies, average 57 pounds; 5,000 pounds per 68 colonies, average 73½ pounds; 35,000 pounds per 400 colonies, average 87½ pounds; 2,000 pounds per 200 colonies, average 10 pounds; other averages are 10, 26½, 75 and 28 pounds per colony.

☞ We call particular attention to the Fifth Annual Report of the National Bee-Keepers' Union, published in this issue, and invite every bee-keeper to become a member. Send to this office for a Blank and vote for officers. Those now in the office have been re-elected so often that we know they would all like a change. Let us have a *new deal* all around, and perhaps that will put *new life* into the organization. Select those you prefer in the list of members, which will be sent with the Voting Blank; fill it up, and return it to the Manager, with a dollar, and that will make you a member, and pay all dues for the year 1890. The result of the election will be announced in the BEE JOURNAL for the second week in February. If you get more than one Voting Blank, please hand one to your neighboring bee-keeper, and get him to join the Union, too.

☞ The Chicago *Herald* published the principal part of our denial of its assertion that comb honey was being manufactured (as found on page 724) without comment! This virtually admitted its error in making the foolish statement—though it had not the manhood to apologize for the blunder.

☞ If any of your numbers of the BEE JOURNAL for this year are lost or mislaid, and you desire others to replace them, you should look them over at once and send for them before all our stock is exhausted. They are already getting low on some numbers.

☞ Any of the Political Dollar Weekly Newspapers will be clubbed with our JOURNAL at $1.75 for the two; or with both our HOME JOURNAL and BEE JOURNAL for $2.50 for all three papers.

GLEANS OF NEWS.

Death of Mons. H. Hamet.

We have already given a short notice of the death of this distinguished French apiarist, author and editor. The following was written by Mons. G. de Layens, for the *Revue Internationale d'Apiculteur*, published by our friend, Mons. Ed. Bertrand, and is translated for the AMERICAN BEE JOURNAL by friend Chas. Dadant:

The Central Society of bee-culture of France has experienced a great loss. Its Secretary, Mr. Hamet, died on Oct. 6, at the age of 74.

In his youth, Mr. Hamet was a schoolteacher who spent his leisure hours with bees. His first teacher, in bee-culture, was Lombard, the well known professor of beeculture of Paris. Toward 1855 Mr. Hamet settled in Paris, and soon after founded a society under the name of *Societe Economique d'Apiculture*. At about the same time, he began to publish the journal *L'Apiculteur*, and to lecture on bee-culture in the elegant school-apiary of the Luxembourg, a building which was unhappily destroyed later, in consequence of improvements undergone by this public garden. There remains yet, in the Luxembourg, a few hives surrounded by trees; and it is there that Mr. Hamet continued his lecturing to his last days.

In 1856 he published a small treatise on bee-culture, and soon after a pamphlet on the amesthesis or asphyxy of bees, and a book on bee-culture.

His *Cours Pratique d'Apiculture*, the first edition of which was printed in 1861, is just published for the sixth time. His *Calendier Apicole et Almanac der Cultivateurs d'abeilles* was the extent of his works; of his last pamphlet a second edition was published.

The first French exhibition of bee-culture took place in Paris in 1859, and since that, thanks to the initiative of Mr. Hamet, it has been followed by a great many others.

A large number of medals were distributed in these exhibitions, the men composing the Board were always selected among the most enlightened practitioners. Such gatherings contributed to spread bee-culture in France.

Mr. Hamet being prejudiced in favor of the hives having fixed combs for rural beekeeping, drew to himself a large number of bee-keepers of the country, who were, on that account, more numerous than other bee-keepers in the meetings. In spite of such drawbacks, movable-comb hives have at last been adopted by bee-keepers in France, and at the "*Concours Regional of Chartres*," in 1885, Mr. Hamet yielded to the evidence given by Mr. Joly, who is a clever bee-keeper, and owner of 200 colonies.

Mr. Joly, who was a *fixist* (favored immovable combs), is now a *mobilist* (uses movable-comb hives), acknowledges that he was backward; that, when growing old, he has recognized the merits of the movable-comb hive; that he obtains from this hive larger profits; and that, in his opinion, it ought to be preferred....Mr. Hamet, resuming what was said, closed his speech by saying that we should work to get strong population in the hives, and adopt the movable-comb hive, which seems to give the best results, for he, too, like Mr. Joly, rallies to this method, etc. *Bulletin de la Societe d'Enres Loir*, 1885.

Mr. Hamet was a little rough in his manners, and we could notice it occasionally in his journal; but I cannot forget that he was my first teacher; that, but for him, I would never, probably, have engaged in bee-culture, and that, during an intercourse of 20 years (or more) he acted kindly and obligingly by lending me the books, in his large library, on bee-culture. It was in his apiary of Mendon that I hived my first swarm. All these reminiscences cause me to regret not to have shaken hands with him for the last time.—G. DE LAYENS.

Hoarseness and Chilblains.

Among the many uses to which honey may be effectively applied, are the following, which doubtless will be very acceptable at this season of the year, in many families where the BEE JOURNAL is a regular weekly visitor:

HOARSENESS.—Wrap a large lemon in a piece of wet, raw cotton, cover with hot ashes and roast; when done, squeeze out the juice and mix with honey. Dose, one table-spoonful every hour.

CHILBLAINS.—Make an ointment of tincture of catechu, 2 fluid ounces; honey, 1½ ounces; water, 7 ounces. Mix well and apply at night.

Langstroth Revised.

The following notice of this book is translated from *L'Apicoltore*, an Italian monthly published at Milan, Italy, and edited by our friend, Alphonso Visconti de Saliceto, with whom we had an interesting visit ten years ago. He says:

I owe to the kindness of my dear friend, Chas. Dadant, the worthy present of the above work.

The old edition of "The Hive and Honey-Bee," which I own, and of which I gave, some years ago, a summary, in the *Apicoltore*, was written in 1859. Mr. Langstroth, being unable to revise it, on account of old age and sickness, intrusted the revision of this classic work to Messrs. Dadant.

The book is now at the altitude of the most recent knowledge in bee-culture. It contains 521 pages of text; the old edition had but 387 pages. It is illustrated with 199 very fine engravings, and maguificent pictures of Messrs. Langstroth, Huber, Dzierzon, Cheshire, Root, Cowau, Mehring, Hruschka, Bertrand, Cook, Newman and Swammerdam.

Messrs. Dadant having manifested the desire to use some of the engravings which have been published, from time to time, in our journals, our society willingly granted their request.

Messrs. Dadant give us the hope that they will soon write for the world, in the French language, this valuable book, which will then be read and easily and fully understood by all our fellow bee-keepers.

We will publish, in the *Apicoltore*, a summary of what will seem, to us, new, or confirming the experience of others on facts already known, but not yet accepted as truth by all. DR. ANGELO DUBINI.

Cassano Magnano, Italy.

☞ Every one who has read of the disastrous fire at Lynn, Mass., will scrutinize with interest the pictures in *Frank Leslie's Weekly*. The strong, manly face of Henry M. Stanley, which is represented, speaks of the energy that has accomplished so much, while that of Mrs. Charles Albert Stevens is most attractive in its beauty. Other subjects give the paper its usual interest.

Honey Almanac.

This Honey Almanac places in the hands of bee-keepers a powerful lever to revolutionize public sentiment, and create a market for honey, by making a demand for it in every locality in America.

Each alternate page is an illustrated calendar for the month—making a complete Almanac for the year 1890.

Here is what is said of it by those who have seen the Honey Almanac:

The Honey Almanac is an excellent aid, a novel idea....We can recommend the Almanac to our friends.—*Canadian Honey Producer.*

The author has really done a good thing for bee-keepers in publishing a work giving so much information of value to the general public concerning the various uses of honey. We know of no better way to get up a home market for the sale of honey than can be done by purchasing at least 100 copies of the Honey Almanac and distributing them gratis as far as they will go in the neighborhood, where one desires to find a sale for his honey. It is not possible for the bee-keeper to find a cheaper way to advertise his goods. The price of the Almanac is so low that every bee-keeper in the land can afford to purchase a thousand or more copies and scatter them far and wide. Take hold, friends, help Brother Newman out, and at the same time help yourselves.—*American Apiculturist.*

Its 32 pages are filled with interesting facts, figures and suggestions concerning the uses of Honey for Food, Beverages, Cooking, Medicines, Cosmetics, Vinegar, etc. Also, its effects on the human system are tersely noted; a brief refutation is given of the Wiley lie about manufactured comb honey; a short dissertation sets forth the mission of bees in fertilizing the flowers, and increasing the fruit product. Instead of being an injury to fruit, bees are the fruit-growers' best friends.

Prices:—25 copies for $1.00; 50 copies for $1.50; 100 for $2.50; 500 copies for $10.00; 1,000 copies for $15.00, delivered at the freight or express office here. The bee-keeper's Card will be printed upon the first page, without extra cost, when 25 or more are ordered at one time. Postage, 40 cents per 100 extra. All orders can now be filled as soon as received.

Convention Notices.

☞ The annual meeting of the Vermont State Bee-Keepers' Association will be held at Burlington, Vt., on Jan. 22, 1890. J. H. LARRABEE, *Sec.*

☞ The Northern Illinois Bee-Keepers' Association will hold its annual meeting in the Supervisors' Room of the Court House, at Rockford, Ills., on Dec. 17 and 18, 1889. D. A. FULLER, *Sec.*

☞ The Cedar Valley Bee-Keepers' Association will hold its next semi-annual meeting at the office of Jerry Mosher, Waterloo, Iowa, on December 18 and 19, 1889. All interested in bees and honey are cordially invited to be present. J. J. OWENS, *Sec.*

☞ The 24th annual meeting of the Michigan State Bee-Keepers' Association, will be held at Lansing, Mich., in the Capitol Building, on Dec. 26 and 27, 1889. At that time nearly all railroads sell half fare tickets; a few railroads charge one-and-one-third fare for the round trip. Reduced hotel rates will be given at the Hudson House. All are cordially invited. H. D. CUTTING, *Sec.*

☞ The bee-keepers of Huron and Tuscola Counties will hold a joint meeting on Dec. 16, 1889, in the Union House, Concordia Hall, at Sebewaing, Huron Co., Mich. All interested are cordially invited to attend, and make this, the first meeting, a great success. There will be topics of interest to all discussed. JOHN G. KNUDINGER, *Cor. Sec.*

QUERIES AND REPLIES.

Proper Width and Material for Separators.

Written for the American Bee Journal

Query 675.—1. What width of separators would you advise for sections 4¼x4¼x2 inches? 2. Of what material should they be made?—Iowa.

I do not use separators.—M. MAHIN.

1. Three and ⅜ inches. 2. Wood.—J. M. HAMBAUGH.

1. Three and ½ inches. 2. I prefer tin.—G. M. DOOLITTLE.

1. Three and ½ inches. 2. Of wood.—J. M. SHUCK.

1. Three and ½ inches. 2. I prefer tin.—R. L. TAYLOR.

1. Three and ¼ inches. 2. Some prefer wood; I prefer tin.—A. B. MASON.

1. About 3½ inches. 2. Wood has worked very satisfactorily with me.—J. P. H. BROWN.

1. As wide as the sections, viz: 4¼ inches. 2. Wood, planed smooth.—C. H. DIBBERN.

1. Three inches. 2. Basswood or poplar—very white wood.—A. J. COOK.

1. About 3½ inches. 2. If nailed on, tin; if loose, wood.—C. C. MILLER.

I never used separators, for my local trade does not demand them. If I did, I should prefer tin.—MRS. L. HARRISON.

1. Three and ½ to 3⅝ inches. 2. Wood or tin, plain, no holes through them, nor corners, angles, or other costly theories, that are of no practical use.—JAS. HEDDON.

1. I use 3½-inch tin separators. 2. I have seen them made of wood, which worked nicely. The kind would depend, with me, largely upon the price.—EUGENE SECOR.

1. There should be room both at the top and bottom of the separator for the free ingress of the bees—say ½ inch. 2. White poplar makes a good separator; but tin is perhaps the cheapest in the end.—WILL M. BARNUM.

1. Allow about ⅛ inch at the top and at the bottom of each separator. 2. I have used both tin and wood, but I find tin the easiest to manipulate, and so I use it. I do not think that any difference in results will be found, whichever is used.—J. E. POND.

1. Three and ½ inches. 2. I have used many tin separators, and they work well; but wood is so much cheaper, and works just as well, that I prefer the wood. I prefer some hard wood to basswood. I have had basswood separators eaten ¾ of an inch down from the edge.—H. D. CUTTING.

1. Separators should be made as wide as the section is high. There is not space here to give the reason, but it will be forthcoming. 2. I believe that wood makes by far the best separator. Yellow poplar is the best wood, and should be sawed, not sliced, into separators.—G. L. TINKER.

The separators that I use in my section-cases are made of Coke tin, and are cut 3⅜ inches wide; this leaves ample openings at the tops and bottoms of the sections for the bees to pass freely, and yet it is close enough to prevent the combs from being bulged. I prefer tin, because it is thin, and takes up less room than any other material fit for separators.—G. W. DEMAREE.

1. About 3½ inches. 2. Tin is generally preferred, but wood has some advantages; and some apiarists like it as well as tin—others prefer it.—THE EDITOR.

Having Combs Built, or Buying Foundation.

Written for the American Bee Journal

Query 676.—In changing from the producing of comb to extracted honey, is it best to have the bees (weak colonies) build their combs, or buy foundation?—Ark.

Buy comb foundation.—M. MAHIN.

Buy foundation.—G. M. DOOLITTLE.

I would use foundation.—J. P. H. BROWN.

I should use foundation.—EUGENE SECOR.

Buy foundation.—J. M. HAMBAUGH.

I think that I should buy foundation.—C. C. MILLER.

I should prefer to buy foundation.—H. D. CUTTING.

I should prefer to use foundation—R. L. TAYLOR.

I would advise the use of full sheets of foundation. It is the cheapest in the end.—WILL M. BARNUM.

I would buy foundation; then I would have light combs, that would not color white honey.—MRS. L. HARRISON.

Buy combs, if you can, and if not, get foundation, by all means.—JAMES HEDDON.

I would buy foundation, every time, even if I had to borrow the money to do so.—C. H. DIBBERN.

I prefer foundation; though in some cases it pays to have bees build combs. For extracting, wired combs are very excellent. To obtain these, we must have foundation.—A. J. COOK.

I would not try to produce comb honey with weak colonies. The bee-keeper's golden rule, "Keep all colonies strong," is especially valuable in producing comb honey.—A. B. MASON.

If the bee-keeper is prompt, diligent, painstaking, persevering, accurate, skillful and level headed, buy foundation. If he is not all these things, he would better not have the bees.—J. M. SHUCK.

Accordiug as the bee-keeper could afford. I would prefer the frames half filled with foundation, but full sheets may be used to great advantage between old brood-combs, if straight.—G. L. TINKER.

Use comb foundation, by all means. In my locality, to set the bees to building their combs in the surplus cases, with a view to obtain combs for extracting, would be the worst sort of management. The foundation will pay 200 per cent. on the investment, the first season.—G. W. DEMAREE.

I find the best results from the use of foundation; and then again, complete control is had by its use, both in the matter of getting straight combs, and all-worker cells if desired. There is a difference of opinion, however, on the subject, and localities may be the cause.—J. E. POND.

By all means give them comb foundation. Weak colonies are very poor to depend on for building comb.—THE EDITOR.

Essays on Extracted Honey.

We offer Cash PRIZES for the best essays on "Extracted Honey," each essay not to exceed 2,000 words in length, and must be received at this office before Jan. 1, 1890. The first prize is $5.00; the second, $3.00; and the third, $2.00. All essays received on this offer will become the property of the AMERICAN BEE JOURNAL, and is open for competition to its subscribers only.

CORRESPONDENCE.

BEE-ESCAPE.

Description of a Simple and Effective Bee-Escape.

Written for the American Bee Journal

BY C. H. DIBBERN.

The engraving is that of the underside of a solid honey-board, with bee-spaces to match the hive and supers. The illustration tells the story, and any intelligent bee-keeper could make it without further explanation. The cones are double, and fit in the *bee-space* on the underside, presumably ⅜ of an inch, though I have them for a ¼-inch space.

They are easily made of green wire-cloth, by shaping them with the fingers over a wooden form. It is surprising how nicely a piece of green wire-cloth can be shaped over a block!

A little explanation may be necessary to enable any one to make it. The dots are holes ¾-inch through the board, and the board itself may be of any thickness. The outside cone is just enough larger to easily admit of a bee running around it. Now when this escape board is placed with the cones fitting nicely in the bee-space under it, above the hive or case of sections, and the full case of sections and full of bees is placed on it, they will at once find themselves comparatively cut off from the queen and brood-combs, and become greatly excited. Of course they readily find the holes, and down they go, and out at the escape into the hive.

Should any try to return after passing out of the inner cone, they will be very likely to run around it, and out of the outer one. The exit from these cones is just large enough to nicely allow a bee to pass out, but as the wire in the edge of the cone points outward, it is not so easy for a bee to return; but should one occasionally get into the outer cone, it would very likely take the passage *around* the inner cone, and out again into the hive.

Suppose, however, that a very few bees should regain the super—they would soon find themselves rather lonesome, and be glad to rejoin the great company below.

Of course the form of this escape can be varied; for instance, the holes may be cut in the middle, or any other part of the board. The form of the wire-cloth cones can also be changed, to make two or more outlets. It could also be changed to the form of a star, and placed over one hole in the center,

with the escapes at the points of the star, and it could be made double or triple. The principle however remains the same, viz: a horizontal escape in the bee-space under the board. I know that this escape will *work perfectly*, and it would be difficult to get up anything cheaper.

The cones can be made for a cent each, and I do not figure the boards anything, as they are worth all they cost, for an inner cover. The cones are tacked on with a few 2-ounce tacks, and can readily be removed in a moment. I have another use for this board, however, when the cones are removed. I use just such a board with one or two ¾-inch holes to place under supers of finished sections. This allows some bees to remain with the honey, to protect it from moth, and care for it, till it is thoroughly ripened on the hive. This board is to protect the honey from getting soiled from the bees below, that constantly travel over the dark brood-combs.

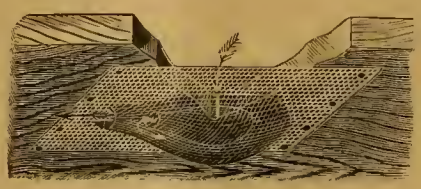
I have been working with bee-escapes of various kinds during the last season. Mr. John S. Reese, of Winchester, Ky., first called my attention to his bee-escape, and I was greatly pleased with the idea.

Now I want to say right here, that to Mr. Reese belongs the honor of inventing the first practical bee-escape, and but for his invention mine would never have been thought of. I would not detract one iota from the credit so justly due him, for bringing out, and donating, his invention to the public.

I soon discovered, however, that his escape was not perfect, on account of bees clustering and building comb in the space required for the tube under the board. Mr. Reese has obviated this in a measure, by removing a section from the super of empty sections under it, and running the cone into it temporarily. Of course, it must be removed before much comb is built, and the empty section returned, which is not so easily done when the super is full of bees; and the **T** supports have a disagreeable way of *not* letting the section slip below the upper ridge of the **T**. Then, too, when the last case is removed, Mr. R. again uses the rim of a super only under the escape-board. This, even in cool weather, after honey has ceased coming in, does not prevent the bees clustering there, as found out this fall.

While I was trying to overcome the foregoing objections in Mr. R.'s bee-escape, I became convinced that in order to make a perfect escape, I must abandon the vertical principle, and adopt a horizontal one. I tried to use a common slatted honey-board, by covering partly with rubber-cloth, but I soon abandoned it. I next made a wire-cloth arrangement the size and thickness of a honey-board, with **V**-shaped escapes between the cloth. This worked all right, but was expensive, and objectionable in many ways.

Somehow I knew that I had the right (horizontal) principle, and that there must be no space under the escape. Lately I wrote to Mr. Reese, who made some well-grounded objections to this wire-cloth escape, but thought it would work. I was not satisfied with it myself, and felt that something more simple could be invented. With these thoughts on my mind, I went to bed, and after a short sleep, I awoke, and again commenced thinking of bee-escapes. Then thinking



The Dibbern Bee-Escape.

of my honey-protector, and my horizontal cones, I put the two together, and instantly almost exclaimed "Eureka!" I had found it. The next morning I hastily made the wire-cloth cones, and attached them to the honey-protector board, and I had a *perfect bee-escape*—just the thing I wanted!

There is no patent on this bee-escape, and I now give it to the bee-keepers of the world. If Mr. Heddon has as good one, he can keep it as a great secret. The one here described is all that can be desired. I want bee-keepers to give it a fair trial, and if it is not the simplest, best and cheapest thing out, they are at liberty to invent a better one. I consider this the best thing that I ever invented. If it will lessen the cares, and labor, of our favorite pursuit—bee-keeping—I will feel well repaid.

Milan, Ills.

Hints to Beginners.

☞ The truth which every beginner should learn, and one that should stand out with great prominence is, that a large force of bees will do a large amount of work, and that said force should be on hand just when the labor or honey harvest is on hand. Failing to have the workers on hand at this time, means a failure to secure very much of a harvest of honey. Therefore every effort should be made to secure a large stock of working bees at the time, or times, when the flowers yield the most honey, or when the plants are in bloom, which usually gives the surplus crop.—*American Rural Home.*

ILLINOIS.

Report of the Union Bee-Keepers' Convention.

Written for the American Bee Journal

BY J. M. HAMBAUGH.

The Union Bee-Keepers' Association met at the Court House in Mt. Sterling, Ills., at 10 o'clock a.m., on Thursday, Oct. 23, 1889, and quite a number of prominent bee-keepers were present, and lent much eclat to the occasion.

In the absence of President Ogle, ex-President S. N. Black, of Clayton, was persuaded to officiate. The first half day's meeting was somewhat informal, and social discourse upon sundry topics was freely indulged in. The Secretary read an essay from W. J. Cullinan, of Quincy, entitled, "Increase and Its Control," which was discussed as follows:

Mr. C. P. Dadant said that increase will never be fully under control. It was somewhat against nature.

Mr. Black—By introducing a queen to a parent colony, immediately after a swarm is cast, would prevent further increase.

Mr. Hambaugh asked for a remedy, to cause bees to work in the sections.

Mr. Smith puts on supers at the very first indications of a honey-flow, before the cells are drawn and become white.

Mr. Dadant does not advocate restricting the queen, but should have unrestrained privileges to either sections or combs.

Mr. Smith said that there was some features not thoroughly understood with regard to bees being in a normal condition. They should have plenty of nurse-bees, comb-builders, and honey-gatherers.

Mr. Dadant said that comb-building was under the control of the bees, and that bees would become gatherers much sooner in life than 21 days, as asserted by Mr. Smith.

Treasurer J. G. Smith reported $7.25 in the treasury, and it being sufficient to meet contingent expenses, no extra charges will be made against the members. The old roll of members having been misplaced, a new list was ordered made. As there was no further business, the "Query-Box" was opened.

ITALIAN BEES VS. BLACKS.

"How do Italian bees surpass the blacks?"

Mr. Dadant—Black bees will starve at times when Italians will prosper, and the latter are superior in every way.

Mr. Smith corroborated Mr. Dadant's statement, and also stated that the

Italians will supersede their imperfect queens more readily than the blacks.

Mr. Black's choice would be pure Italians, but said that hybrids are better to work in the sections than the blacks.

Mr. Wallace had been breeding Italians for 18 years, and would not have blacks as a gift. He never had any trouble with moth, except in queenless colonies.

Mr. Dunbar sent for an Italian queen; she was beautiful in appearance, but her progeny were lazy and not satisfactory. Some of the hybrids reared from her were good, but not equal to some of his blacks.

Mr. Dadant—There is nothing perfect in this world, and this is an exception, and, as a rule, they are otherwise.

The Secretary said that blacks were more disposed to rob and fight than Italians; he has kept a book record of his home apiary for a number of years, where he has had pure Italians, blacks, and their crosses, and finds by actual observation, that the Italians and hybrids produce from ⅛ to ½ more honey than the blacks, and the pure Italians lead both. They will defend against robbers much better, and supersede their imperfect queens much more readily.

SPACE BETWEEN THE SUPER AND HIVE.

"What space, if any, is best between the super and the hive?"

Mr. Smith said ⅜ of an inch. He uses a wedge to hold sections to place against the outer case.

Mr. Dadant—For comb honey, I would use the Foster case, with clamp.

The Secretary uses ⅜ of an inch space between the supers and brood-frames.

SOWING ALSIKE CLOVER SEED.

"Will it pay to sow Alsike clover seed?"

Mr. Wallace sowed some last year, and is much pleased with it. His bees just swarmed on it—he found 20 on it, to one of red clover. The honey granulates sooner than other honey. The hay is good, but the yield is not so large as red clover. The seed yield is equal to that of the red.

The Secretary said that it will pay to sow it; the hay is fine, and less inclined to chaff and dust. His experience was that it is hard to cut with a mower.

Mr. Dadant tried it 18 years ago; sowed it alone, and it fell down badly. He has not tried it since, but believes it to be meritorious.

Mr. Black sowed some two years ago, and got a good stand. He cut it with wheat stubble. Cattle ate it splendidly. Off of 20 acres he sold $150 worth of baled hay. The yield of seed was good.

SECTIONS WITH FOUR BEE-SPACES.

"Are sections with bee-spaces on all four sides an advantage?"

Mr. Dadant had tried them and found that the bees take to them more readily. They are more in accordance with nature, and more accessible in cold weather. They are better ventilated, and bees are not separated so much.

The Secretary had never tried them, but said that they are certainly more in accordance with nature. We should cater to the bees' nature and habits as nearly as we can.

Mr. Smith had not tried them, but doubted if the bees would attach the honey so well to the sides of the sections.

Mr. Dadant—They attach the honey to the sides of the sections better than in the closed-side sections, but they cannot be glassed so well.

INTRODUCING QUEENS.

"Which is the best method of introducing queens?"

Mr. Wallace, after removing the old queen, puts the queen to be introduced into a wire cage, usually allowing her to remain caged for 48 hours in the old hive, before releasing. He also drops honey on the queen before releasing her.

Mr. Dadant cages the queen 48 hours, and lets the bees release her by gnawing the comb with which he closes one end of the cage. He has also used advantageously sweet water scented with peppermint, to sprinkle them.

COMB HONEY VS. EXTRACTED.

"Is there any logical reason why comb honey should receive a preference over extracted honey, as regards taste, desirability, etc.? If so, what is it?"

Mr. Wallace said that it was more in looks than taste.

Mr. Dadant—Extracting may cause it to lose its essential oils to some extent, and it will granulate sooner than that in the comb. It is prejudice more than any logical cause. We must cultivate more of a demand for it.

Mr. Black said that the question was intended for him personally, as he claims to detect a material difference in taste. He also claims that looks go far towards governing the taste, and also that the comb is good for the digestive organs.

The Secretary said that the question was his, but nothing personal was intended. He simply wished to know the cause of so many objections to extracted honey. He has had much experience in selling extracted honey, and knows many of the objections to be groundless. He takes exceptions to Mr. Black's ideas that the wax in comb honey is health-giving, but held that, on the contrary, it was detrimental to the health. He believed that when bees are disturbed, they are liable to emit some of the venom from the sting upon the combs, which probably explains why so many realize griping pains after eating comb honey. This is avoided in extracted honey. He thinks that one cause of prejudice is due to the old methods of "straining" honey through a sack, in connection with dead bees, old, dirty combs, pollen, etc., giving the honey a very unpleasant, rank taste, and which is still confounded with our wholesome extracted honey.

Mr. Black—That does not tally with my methods. We did not get *our* strained honey that way. We excluded the pollen and dead bees.

Mr. Frank said that it made no difference to him, so that he got the honey. He gave the preference to the extracted, as he could put it on both sides of his bread.

WEIGHT AND MIXING OF HONEY.

"Does all honey that is pure, weigh the same, and will it mix?"

The Secretary said that Spanish-needle honey will weigh one pound more per gallon than clover honey.

Mr. Dadant—I cannot mix thick honey, except by warming. Fall honey will weigh more than spring honey. Any good, cured honey will weigh 11 pounds per gallon, and none over 12 pounds. Linden honey is not so readily cured as other honey.

The Secretary had some experience in mixing honey, and it can only be done by heating it quite hot. He had mixed some rank linden honey with fall honey, and it made a very salable honey.

GETTING THE BEST RESULTS.

"How shall we get the best results from our bees in a financial point of view?"

Mr. Smith—Work the queen for strong colonies. Early feeding should be practiced to start the queen to laying, in order to be ready for the first honey-flow.

Mr. Dadant—I would avoid rearing drones as much as possible, as they are consumers, and not producers. I would rear drones from such colonies as would be suitable crosses for queens, and prevent others. One colony properly supplied with drone-comb will rear sufficient drones for an apiary.

The Secretary—No man can prevent bees from rearing drones, entirely. I have frequently noticed drone-brood in worker-cells.

Mr. Dadant—If Mr. Hambaugh had measured the cells of foundation, that had a streak of drone-brood, he would find that they had been stretched to drone size, and that these stretched cells were always near the top of the comb.

Mr. Wallace—Drones in worker-cells are much smaller than normal drones, and I would dispense with them, if possible.

Mr. James—An average of from 50 to 100 drones per colony is sufficient.

The Secretary—The prime factors in honey-production is a good queen, and a hive that you can expand or contract to suit her requirements. We must be able to give the queen room, that no time may be lost in egg-laying; and we must also have all the surplus cases at hand, that we may give the bees plenty of room before they are seized with the swarming fever; we must be able to expand the size of the surplus apartment to the requirements of the large army of workers, to keep the bees at home and at work. We must also be ready to quickly remove all honey from the surplus receptacles, as soon as we know that the honey is cured and ready, and not allow the hives to become glutted with honey, as this is liable to bring about the swarming fever. I use alcohol barrels in which to store honey, and a dry room. I never put honey in a cellar.

Mr. Dadant—Sell in a local market, and keep up fair prices. Sell by sample, but do not begin too early in the season. We must not crowd the market. When shipping comb honey, put heavy paper in the bottom of the crates. For extracted honey, use tin cans, neatly labeled, and make every package as inviting and presentable as possible.

Mr. Thornton—When country stores refuse to buy, leave your honey on commission.

Mr. Black—Each bee-keeper must adapt his business to his surroundings; study his local market, and by all means drive a good local trade. The amount of business done depends upon the ability of the man to sell.

LAYING IN QUEEN-CELLS.

"Does a queen ever lay eggs in queen-cells?"

Mr. Dadant—I think not; their antipathy against other queens leads to that conclusion.

Mr. Wallace—I think that they do.

Mr. Smith had seen eggs in old queen-cells, and their position would indicate that the queen had laid them there.

The Secretary has doubts as to the queen ever laying the egg in the queen-cell, owing to their antagonism toward each other.

Mr. Dadant thought it probable that the eggs had been placed there by the workers.

Mr. Thornton—I think that the queen lays in the queen-cells, the same as in other cells.

Mr. Black was of the opinion that the queen sometimes lays the egg in the queen-cell, and at other times the cell is built around the egg by the workers.

Mr. Wallace said that the queen lays the egg in the queen-cell.

Mr. Dadant—If we admit that the queen lays the egg in a queen-cell, and knows the sex of the egg, then she is different from anything in the animal kingdom. If she does not know the sex (and size of cell governs the sex), then the egg would hatch a drone.

DIFFERENCE IN YIELDS OF HONEY.

"What is the difference in the yields between comb and extracted honey, when the apiarist furnishes foundation for comb honey, and dry combs for extracted honey?"

The answers were as follows: The Secretary—Double the amount; Mr. Wallace—A trifle more; Mr. Thornton—Twenty per cent. more; Mr. Williams—No more; Mr. Dunbar—Fifty per cent. more; and Messrs. Smith and Black—A trifle more.

QUESTIONS ON DRONES.

"Will bees admit drones from other hives, when they are not queenless?"

The prevailing opinion was that they would during a honey-flow, but not during a dearth.

"Are drones from virgin queens of the same value as from fertile queens? Are drones from laying workers capable of fertilizing queens?"

Mr. Dadant—According to Mr. Cheshire, their organs are fully developed, though they be from an unfertile queen, or laying worker.

Mr. Wallace—They are "no good," in my estimation.

WHAT IS ROYAL JELLY?

"What is the food, or in other words, the royal jelly upon which young queens are fed during the larval state?"

Mr. Dadant then read from Mr. Cheshire's writings upon this subject.

Mr. Wallace once cut out a section of comb with eggs, and put it into a hive with a swarm of bees, and shut them up for three days, at the end of which he found queen-cells filled with royal jelly, and he knew that they had no possible chance to gather it from the outside.

SPRAYING FRUIT-TREES.

At Mr. Smith's suggestion, it was decided that the association be authorized to petition the State Horticultural Society, to prevent as far as it is in their power, the spraying of fruit-trees with Paris green or other deadly poisons, when they are in bloom. Mr. Dadant said that it should become a legislative topic.

The annual election of officers next being in order, the following was the result:

President, S. N. Black, of Clayton, Ills.; Vice-President, C. P. Dadant, of Hamilton; Secretary, Daniel Shank, of Clayton; and Treasurer, G. W. Williams, of Buckhorn.

It was decided that the next meeting be called at the option of the executive committee, in October or November, 1890, and that the Secretary be instructed to secure badges to be worn at the next meeting.

Messrs. Dadant and Hambaugh were appointed as delegates to the International Convention at Brantford, Ont., Canada, on Dec. 4 to 6, 1889.

At the suggestion of the President, the members gave their report for the season of 1889, as follows, the last three names being visitors:

	No. colonies.	Lbs. honey.
J. A. Thornton	250	14,000
J. M. Hambaugh	240	15,000
T. S. Wallace	130	3,500
Chas. Dadant & Son	450	45,000
J. G. Smith	13	300
Jos. Dunbar	34	1,200
G. W. James	18	200
G. W. Williams	19	800
Daniel Shank	19	500
S. N. Black	60	1,200
John H. Hambaugh	20	600
E. S. Frank	9	125
D. W. Miller	4	100
Total	1,266	82,525

The convention then adjourned *sine die*. J. M. HAMBAUGH, *Sec.*

CAGES.

A Queen-Cage for Shipping and Introducing.

Written for the American Bee Journal

BY E. L. PRATT.

I have sent away quite a number of samples of the queen-cage that I am trying to make perfect. All who have received them commend it very highly. Mr. G. M. Doolittle calls it the "perfection cage."

It is a simple block, 1¼x4 inches, containing three one-inch holes ¾ inch from each other, and from the edges of the block. These are connected with a ⅝-inch hole, so as to form a passage-way through the one-inch holes, and make an exit for the queen and attendants, while introducing; when, by simply removing a small cork, the deed is done, as the bees will soon remove the candy in the en-

trance of the cage, and the queen is introdueed without any fussing or trouble.

The first inch hole is the air space which is covered with a small piece of wire-cloth ; the second hole is closed tight, so as to give the confined bees a place in which to huddle together in cool weather; and the third hole, which is at the exit end, is filled with candy enough to last a queen and her attendants 20 days or more. The whole thing is then covered with a thin board, and tacked fast, making a neat and perfectly safe little package, in which queens can be sent anywhere with safety in cool or warm weather.

No wrapping or tying is necessary, and the address can be written directly on the smooth surface of the wood. All the cost of the cage and the postage on a queen in it, is about 1½ cents.

I want to get help on perfecting this cage, and will send a sample to any who are interested, with pleasure. Suggestions are solicited from all.

Marlboro, Mass.

[The sample cage sent with the above article is light in weight, commodious and yet substantial. It is desirable that it be criticised freely, and the offer of Bro. Pratt to send a cage to any one interested, for suggestions looking to an improvement, should be accepted.—Ed.]

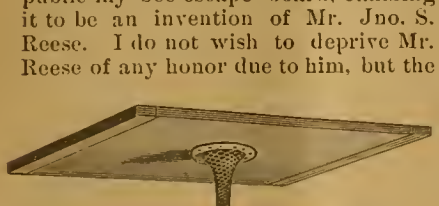
BEES IN CASES.

The Bee-Escape Board and Its Practical Use.

Written for the American Bee Journal

BY FRANK COVERDALE.

On page 739, Mr. Z. T. Hawk rather accuses me of being "fast" in making public my bee-escape board, claiming it to be an invention of Mr. Jno. S. Reese. I do not wish to deprive Mr. Reese of any honor due to him, but the



The Coverdale Bee-Escape.

bee-escape board which I mentioned on page 697, is the fruits of my own study, as I never heard of any way of getting bees out of section-cases while on the hive, nor of any cone for the purpose.

I was not a reader of *Gleanings*, and even if I had been, the cone-case described on page 727, would not have been satisfactory to me, for, as I unstand it, there must always be an empty surplus case with each board, to have the thing right, otherwise, in an ordinary bee-hive, these long screen cones would be very hard to keep in shape ; or, in other words, many of them would be mashed out of shape.

In making the cones for my board, cut strips of wire-cloth 1⅛ inches wide, and as long as the piece you cut it from ; on the forming stick mark one side, placing the mark made, even with the end of the screen strip cut out; roll it just once around or over (the large end of it), and cut it just about ½-inch longer, and in the shape of the letter V—not too pointed at the bottom, just so that it will go nicely around the small end of the forming stick, and a little wider.

Now wrap the top end of the screen around the large end of the stick snugly, take a wire thread long enough to go 4 or 5 times around, and wrap tightly. Take the two ends of the thread between your finger and thumb, and with the other hand twirl the whole thing over and over, until you have it sufficiently tight. Cut off the rough ends, then press it around the middle and lower point, and then bring around the further side of the screen, which will be too much ; then with the shears clip off the spare cloth, leaving it wrapped over about (in the center) two meshes, and just a little more than to meet at the point.

Now wrap another wire thread 4 or 5 times around just where the forming stick begins to spread the screen, or a little over one-half inch up from the point, and fasten as you did the first. The base of the cone when finished, should be just large enough so as not to go through the ⅞ inch auger hole. In order to make the cone go down nicely, with a sharp knife round out the top edge of the board—it is of importance to have the cones go down level and smooth. One of these cones is all that I have been using in a single board, as I think it sufficient ; but if I were to use two, they would not be over one inch apart, and go down between the same to the sections. I think that it is best to have one of these boards for every strong colony in the apiary, as their cost is slight, in comparison with their usefulness and endurance.

As soon as the honey is capped, the board is placed beneath the case, and so on all over the apiary, so it will be seen that I do not have to remove my honey the same day, nor the next—I can take it off at my leisure, even if I should not get at it for a week, when cases fit as they should.

When I wish to remove the boards, the cones are taken out and put into a basket for the purpose, and the boards put away until again needed. My board will not warp out of shape, for the strips nailed against its outer edge, with a ⅞-inch bee-space projecting above the top surface of it, holds it to its place, and it will last as long as will the hives ; and it is about the same with the cones, if properly cared for, which is easily done.

This bee-escape board is a very useful implement. I will hereafter describe how I control increase with it, while producing comb honey.

Welton, Iowa.

THE UNION.

The Fifth Report of Its Work, by the General Manager.

It becomes my duty for the fifth time to make a report to the members of the National Bee-Keepers' Union, of the work done.

The past year has been a glorious one for the Union—one in which its work has been carried to the highest authority in a State (the Supreme Court of Arkansas), and there, by the eloquent arguments of its very able counsel, Judge Williams, of Little Rock, Ark., it has drawn forth a decision in favor of the bees, declaring that the pursuit of bee-keeping is legitimate and honorable—that *bees are not a nuisance !*

We now warn all the "ignorant" and "prejudiced" to keep their hands off—and inform them that *bee-keepers have rights* guaranteed by the Constitution of the United States, that all are bound to respect.

The decision of that Supreme Court is a document that will become of great use as *a precedent*. It will be a guide for the rulings of judges—for the information of juries—and for the regulation of those who may dare to interfere with a respectable pursuit by law or otherwise !

The National Bee-Keepers' Union, in this one instance alone, has been of *great benefit to bee-culture*, even though it has received but very poor encouragement and support from bee-keepers in general !

HOW IT APPEARS TO OTHERS.

Speaking of the argument of Judge Williams, Mr. Eugene Secor, a lawyer of Iowa, remarks thus :

> The argument of the counsel for the "Bee-Keepers' Union" in the Arkadelphia bee-lawsuit, will be a valuable contribution to the legal literature of bee-keeping.....
>
> Town councils—ignoraut sometimes of matters pressed upon their attention by interested aud unscrupulous persons—do some very unwise, as well as unlawful, acts; hence the need of just such a precedent as this case will furnish, for the protection of bee-keepers in the future.

Had it not been for the National Bee-Keepers' Union, that furnished the "sinews of war," this case might have gone against us by default.

A case so wisely managed, and so sucessfully terminated, ought to inspire confidence enough in the Union, that its treasury shall never lack "the needful" to defend every worthy case.

Mr. J. E. Pond, a lawyer of North Attleboro, Mass., gives his opinion of the case in these words:

I have read the exhaustive argument of Judge S. W. Williams with pleasure, and *as a lawyer*, I wish to say that no court can honestly differ from it or decide against it. When I say "exhaustive," I mean just what I say. It covers the whole ground; the decision in the Clark case must be for the defendant on constitutional law, and local law cannot avoid the Constitution.

Mr. R. McKnight, of Owen Sound, Ont., records his opinion of the Arkadelphia case thus:

That defense is worth a dollar to every bee-keeper in the land. The judgment that followed it, established a precedent of great importance to bee-keepers, and will probably be quoted in the courts, through generations to come.

Mr. C. H. Dibbern philosophizes after this manner:

This decision is of real value to bee-keepers, and is the first case of the kind decided by the Supreme Court of any State. Hereafter people having imaginary grievances against bee-keepers will likely think twice before commencing petty suits. Bee-keepers will hereafter be responsible for the real damage that may be caused by their bees, just like any other property. More than that, no bee-keeper ought to ask.

Mr. Clark, being a poor man, could not have afforded the expense to carry the case to the higher court, and employ first-class legal talent. The management of the Union deserve great credit in this, as in all other cases it has ever taken up—never having lost a case.

The first thing the Union does when a case of any member comes before it, is to determine if the case is a just one. If not, he is advised at once, and a satisfactory settlement is soon made. If he is in the right, he is helped in his defense to the last.

Mr. A. I. Root, editor of *Gleanings in Bee-Culture*, remarks thus about the Arkadelphia case:

We are not in favor of trades-unions in general, but the Bee-Keepers' Union, under its present able management, we are sure has been productive of good. After we have a few more precedents established like the Arkadelphia case, outside parties will be slow to declare bees a nuisance.

The National Bee-Keepers' Union is unlike "trades-unions." It simply sets up a *defense* when its members are unjustly attacked! It will not defend even a member, unless his cause is *just;* and attacks growing out of ignorance, jealousy, prejudice, and the like, which threaten the pursuit in general, should always be repulsed vigorously!

The "Union" orders no strikes, and makes no attacks—it simply *defends* the pursuit of bee-keeping, and fights in a moral and legal way, for right, justice and truth!

OUR CONSTITUTIONAL RIGHTS.

Judge Williams argued in a masterly manner, and was sustained by the court, that the power is not given by the Constitution of the United States to prohibit bees by Statute. We have a Constitutional right to keep bees.

Many persons are frightened by the fact that the bees possess a weapon of defense, and thereupon declare them a nuisance. They never stopped to think that the "sting" was provided by Nature for its defense, and to insure the perpetuation of its kind! If an attack is made upon its home, the sting is its only defense—but it is an effective one! When away from its home, it seldom volunteers an attack!

It was asserted by the prosecution, that bees were a nuisance because they were liable to sting children. Judge Williams met it with this unanswerable argument: "It is not true; unless children molest them at their hives, or catch them. But because a domestic insect may sting or hurt under some circumstances, no more makes it a nuisance—*per se*—and liable to prohibition, than the fact that a horse may kick, may run away in the harness and kill a child; or an ox may gore persons with its horns, would make these animals nuisances *per se*."

Cases are numerous where children have been injured, and even killed, by the kick of a horse, by being run over by a cow, the bite of a dog, or the scratching of a cat. The Judge asks, "Shall the keeping of horses and cows be forbidden by an ordinance?" Certainly not! No one would think of such a thing for a moment! Domesticated bees must have an equal chance with all domesticated animals!

ADVANTAGES OF THE DECISION.

A condensed history of this case, together with the argument of the counsel for the Union, and the decision of the Supreme Court, has been printed by the Union, and a copy thereof will be sent to each member for perusal.

These pamphlets have already saved much trouble, and prevented several law-suits. A case in point, and one which illustrates the moral effect of being a member of the National Bee-Keepers' Union, is as follows:

Rev. Robt. Carver, of Manton, Mich., a member of the Union, wrote to the Manager that he was sued by a jealous neighbor to appear before a prejudiced Justice of the Peace, for maintaining a nuisance. The damage was placed at $100 for trespassing bees, and threats were made to drive him and his bees out of the village.

The Manager of the National Bee-Keepers' Union counseled him as to what to do, and how to proceed; told him to hire a good lawyer, and assured him that the Union would stand by him as long as he was in the right, and defend his rights in a moral as well as a financial way.

The case was called, and an adjournment was made, Mr. Carver retained a lawyer, showed him the letter and documents of the "Union." He read the latter carefully, then went and talked with the opposite attorney, and some of those incensed against the bees. The result was that they were quite willing to compromise the affair. By mutual agreement the suit was dropped, leaving the parties who brought suit to pay all costs.

Mr. Carver writes as follows: "A friend of mine happened in, when several of them were talking about the matter, and he heard the Village Marshal say, that if they went on with the case, they would have all the bee-fraternity to fight, and would have their hands full."

ITS MORAL EFFECT.

This is another triumph for the Union. The moral effect of being a member of an organization for the defense of the pursuit, was that the prosecuting party withdrew from the field and paid all the costs!

Several other cases, similar to the above, might be cited, all serving to illustrate the fact, that belonging to such an organization is of itself not only an honor, but also a power in the defensive! If a jealous or prejudiced neighbor finds that a bee-keeper belongs to a "Union" for the defense of the pursuit, he will think twice before rushing into a lawsuit.

The decision in the Supreme Court of Arkansas will do more to guarantee bee-keepers their *rights*, than anything that has ever been done in America. If the Union never does another thing, and goes out of existence *at once*, that decision will be its "crown of glory," and its generous benediction.

THE "S. W. RICH" LAWSUIT.

This is quite another thing from the Arkadelphia case. Mr. Olmsted sued S. W. Rich for $1,200 damages for injuries (?) inflicted by the bees upon his person and property, but the jury (from which every person having bees was excluded) gave him but six cents to cover wounded feelings and damaged property!!

This has been appealed to the Supreme Court, and the decision of the lower court affirmed. Whether to carry this case up to the Court of Appeals is the question. If that Court should pass upon the merits of the case, it will be worth the money it will cost, which will be about $500.

HOW TO BECOME MEMBERS.

As this Report will be sent to many not now members, but who should become such, it may be well to say that the entrance fee is $1.00, and that pays for the dues of any portion of the unexpired current year, ending Dec. 31. Then it costs only $1.00 for annual dues, which are payable every New Year's day, and must be paid within 6 months, in order to retain membership.

If membership ceases, all claims against former members also cease; and all claims to the protection of the Union are dissolved.

Financial Statement for 1889.

Balance as per last Report	$279.38
Fees from 315 members for 1889	315.00
Donations	3.70
	$598.08
DISBURSEMENTS	$236.40
Balance, Dec. 2, 1889	$361.68

LIABILITIES.—Bonds are given for the costs in the Rich lawsuit. These, with the amount necessary to carry up the appeal, if it is passed upon by the "Court of Appeals," will probably amount to $600.00, or more.

The Union has also engaged attorneys for the defense of several other cases, the costs for which will have to be paid when they come up for trial—so we shall have use for all the money on hand and the dues for the next year—as the cases come up for trial.

DUES AND ELECTION OF OFFICERS.

It now becomes my duty to call for $1.00 for the coming year, as dues from each member. A Blank will be sent to be used for that purpose; and also a Voting Blank. Fill up all the blanks, and send to the Manager with a postal note or money order for $1.00 in the enclosed envelope. It must be received by Feb. 1, 1890, or the vote will be lost.

CONCLUDING REMARKS.

If the Union is to continue its good work, it must be supported both by the financial as well as moral influence of all the apiarists of America.

The General Manager has labored incessantly, without the hope of reward, except such as comes from a consciousness of having done his full duty, and now is fully prepared to welcome his successor, when elected. His energies have been given in unstinted measure for the defense of the pursuit, and it is a pleasure to know that his labors are appreciated so far as words go—but it takes money to obtain "decisions of law," and lift up a standard in defense of the pursuit.

THOMAS G. NEWMAN, *Manager.*

925 West Madison Street, - - CHICAGO, ILL.

A GOOD TEST.

The Honey Almanac Creating a Market for Honey.

Written for the American Bee Journal

BY REV. STEPHEN ROESE.

To bee-keepers the Honey Almanac is well worth all that it costs them, and I think that all who live to see another honey season, will feel the need of a double portion of those grand little helps in honey sales. I, for one, will want a full 1,000, I think, to sow broadcast over the land. They will accomplish the object in view—the ready sale of our honey; and, besides, inform the public in regard to its various uses in the kitchen as food, and in the nursery as medicine; and, what is more, it will remove a prejudice which has hitherto planted itself as a monstrous battery to keep at a distance from mankind, their family friend and God-given blessing—honey.

It is very strange that the want of such a "leader" among the many thousands of bees-keepers of the land has not been felt before. With my small lot of Honey Almanacs, I have begun experimenting. Wherever I intend to sell honey, I send them out as an "advance guard," to open the way, and this "advance guard" is marching on unmolested; and good reason and judgment will not suffer it to be ordered to turn about.

One year ago I went to St. Paul with some comb honey, and 200 pounds of extracted. The comb honey I sold, but the extracted no one wanted, so I left it with commission men until last May, when I had it shipped back again, without selling one pound, and used it in feeding bees. Of late, since I got the Honey Almanacs, I went to that city again, with some comb honey and only one gallon can of extracted, which I begged the groceryman to purchase on time. Seeing he had jelly tumblers for sale, I told him to fill them with honey, and put them on the counter, and if they were not sold when I returned, I would take the honey back, and pay for the tumblers—which he agreed to.

I left a Honey Almanac, and in less than a week he wrote to me, saying that the honey was all sold, and to send more at once—a case of 2 tin cans (60 pounds each), and some Honey Almanacs also, which I did, and sent him three cases instead of one, prepaying the freight, and stating that he need not purchase the two cases not ordered, but to please store them for safe keeping until I went to St. Paul.

To my daughter residing in another town, I sent one copy of the Honey Almanac, and after letting a neighbor read it, she ordered 100 pounds of extracted honey, and I had hardly received her letter, acknowledging the receipt of the honey, when she wrote back, "The honey goes like hot-cakes. It is all gone, but don't send me any more honey in 60-pound tin cans, as it is too much trouble to weigh it out. Send me 200 pounds more, immediately, in 12-pound tin cans. Nearly every family wants at least that much. The people are coming with horses and buggies from far off, to my door, and call for honey."

Those "little, big levers" (Almanacs) have helped me wonderfully in the almost discouraging work before me, of selling my honey.

Although times are hard, money is scarce, and bee-keepers should economize and save expenses in directions uncalled for, yet a few dollars invested in Honey Almanacs, will bring its interest annually in gold. What brought the riches to the patent-medicine institutions, such as Drs. Payne, Ayer, Schenk, World's Dispensary, and others? Advertising! If their advertising mediums—their Almanacs—were able to accomplish such ends, what may be looked for in the near future from the Honey Almanac, having such a broad field, and sure foundation to work upon?

Patent-medicine almanacs have only here and there a few feeble testimonies to work with, but the Honey Almanac has truth for its basis and foundation, and the most learned and scientific men of the nation to bear testimony in its favor, and back it, too, wherever it goes. The Bee-Keepers' Union stands ready, as a protecting friend, for all who will seek shelter under the shadow of its wings, to ward off the fiery darts of all enemies of this honest industry, and the dollar spent in this direction is equally well invested as in the Honey Almanac, and only old-fogy bee-keepers will sit with their hands folded, growling about hard times, and wishing and praying for better prices, and more ready sale of their honey; but wishing and praying, without a manly act, and a disposition to keep pace with the bee-keeping body, is like a locomotive without the moving power. Life is motion, and nature, in its onward course, teaches mankind the great lesson that a Stand-still has corruption in store, and decay in its bosom.

Maiden Rock, Wis.

☞ We always extend the term of renewal subscriptions from the date of expiration on our books. Present subscribers whose time may expire one, two, three or six months hence, can safely renew now, without fear of loss thereby.

CONVENTION DIRECTORY.

1889. *Time and Place of Meeting.*

Dec. 17, 18.—Northern Illinois, at Rockford, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

Dec. 16.—Huron & Tuscola Co's., at Sebewaing, Mich.
J. G. Knudinger, Cor. Sec., Kilmanagh, Mich.

Dec. 26, 27.—Michigan State, at Lansing, Mich.
H. D. Cutting, Sec., Clinton, Mich.

1890.

Jan. 22.—Vermont State, at Burlington, Vt.
J. H. Larrabee, Sec., Larrabee's Point, Vt.

May 2.—Susquehanna Co., at Hopbottom, Pa.
H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Benefits of Bee-Papers.

I am very much pleased with the AMERICAN BEE JOURNAL. I secured about 500 pounds of comb honey this year. Two swarms went off, and I now have 20 colonies in good condition for winter. My bee-keeping friends sold their honey at 12½ cents per pound, but I sold mine at 15 cents at my house. I have sold about 400 pounds, and have only 100 pounds left. I have three neighbors that have bees, and every time they have a little dab of honey to take off, they come to me. They said that they would not be stung for all the honey. I told them that if they would send for the AMERICAN BEE JOURNAL, it would help them a great deal with their bees.

GEO. F. TIBBETTS.

Ocheltree, Kans., Nov. 30, 1889.

White Clover Crop.

Bees wintered nicely last winter. I had 30 colonies, spring count. They were inclined to swarm some, but I prevented them as best I could. I returned some, and increased my apiary to 40 colonies. We had a wonderful crop of white clover, but rain and cold nights in June cut the nectar short, or rather the clover season was larger than usual, but the surplus was gathered slowly. I obtained 270 pounds of good honey. J. E. BOYLES.

Nelsonville, O.

Good Increase and Little Honey.

The season of 1889, with me, was good for increase, but poor for honey. I began with 52 colonies, and now have 93, and took 3,000 pounds of honey, about one-half comb, which is all sold except about 200 pounds. I received 12½ cents in cash for nearly all; for extracted I get 10 cents per pound. I consider that the swarming fever cost me at least 3,000 pounds of honey. The fall crop was little better than a failure here—it seemed to be too dry. I do not think that I ever saw 100 bees on golden-rod in my life. It is a very poor reliance for honey in this section. What is there against adopting clover as our national flower? I am just preparing to place a part of my bees in the cellar, where I have always had very good results. I usually winter a part in the cellar, and the rest on the summer stands. They had a nice flight last Monday. It had been a very pleasant fall up to last Tuesday, when we had a cold wave and some snow. The mercury is 2 degrees above zero this morning.

W. H. GRAVES.

Duncan, Ills., Dec. 2, 1889.

Cold and Wet Weather.

The first really cold wave for this winter is hovering over this locality, and the mercury is now 10 degrees below zero, while the ground is covered with about 4 inches of snow, and full one inch of ice on top of that, which gives us fine sleighing. On Thanksgiving day we had a heavy rain, which froze as fast as it fell, loading everything with ice, which has done a great amount of damage. I send a drawing of what accumulated on a small stalk of timothy hay, no larger than a knitting-needle.

The honey season here was a small affair for white honey, for the reason that it rained nearly all the time white clover was in bloom. Basswood was of no account. The bugs put in their appearance early in August, on every swamp elm in this locality, and from that time to Sept. 10, the bees put in their time in bringing in "bug-juice," and storing it in their hives, until many of them filled nearly every inch of space in the brood-nest, and it is there now, for them to live on, if they can, through the winter. What the result will be, I will tell next spring. I put my bees into the cellar on Nov. 15 and 16th, in fine condition, being the heaviest lot that I ever put away for the winter. IRA BARBER.

De Kalb Junction, N. Y., Dec. 4, 1889.

[The average width of the ice on the stalk of timothy hay, was 1½ inches. The rain and mud this fall in the West, has been very disagreeable. We hope for colder weather here soon.—ED.]

Poor Honey Crop in Virginia.

I was awarded a diploma for the best display of apiarian supplies, and the 1st premium on bee-hives, honey and beeswax, at the Agricultural Fair at Woodstock, Va. last month. The honey crop was very poor here this year, owing to wet, cool weather. The crop was only about half what it was last year. Nice comb honey in sections is worth 20 cents per pound.

JOSEPH E. SHAVER.

Friedens, Va., Nov. 21, 1889.

Results of the Season.

My report for 1889 is as follows: Number of colonies, spring count, 29—increased to 51. Number of pounds of extracted honey, 2,716; amount in one-pound sections, 1,700 pounds. I think that this does pretty well when we got a very poor fall flow of honey, as the average is about 150 pounds per colony. We had plenty of aster bloom, but from some cause, the bees got no honey from it. There is some golden-rod, but I have never seen the honey-bee at work on it. The greater part of my honey is already sold. R. J. MATHEWS.

Riverton, Miss.

Books Given Away.

Please notice that magnificent list of Popular Books on the second page of our Premium-List Supplement. We offer any Book in that list, which you may select, as a Premium for getting *one new* subscriber, with $1.00 to pay for the same. The Books are nicely bound in cloth, elegantly gilded, and contain from 300 to 500 pages each. The list comprises over 150 of the most popular Books of the day, and are published at $1.00 each.

This is the most remarkable Premium ever offered for obtaining one subscriber. If you want it sent by mail you must send 10 cents extra for the postage. If sent by express from New York, it is entirely *free*. We will sell any number of them to you at 40 cents each by mail, postpaid.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

☞ Read our Book Premium offer on the last page of this JOURNAL.

☞ Money in Potatoes, by Mr. Joseph Greiner. Price, 25 cents, postpaid. For sale at this office.

☞ Send us one **NEW** subscriber, with $1.00, and we will present you with a nice Pocket Dictionary.

☞ Red Labels are nice for Pails which hold from 1 to 10 lbs. of honey. Price $1.00 per hundred, with name and address printed. Sample free.

☞ Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul brood, can be procured at this office at 25 cents per ounce, by express.

☞ The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to advance that date another year.

☞ Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

☞ We have some full sets of the BEE JOURNAL for 1889, and *new* subscribers can have the full sets for 1889 and 1890 for $1.80 until all are gone. Or, we will send the full sets for 1887, 1888, 1889 and 1890 for $3.00.

☞ Systematic work in the Apiary will pay. Use the Apiary Register. Its cost is trifling. Prices:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

☞ When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand Book, by mail, postpaid. It sells at 50 cents.

☞ We offer the Monthly Philadelphia *Farm Journal*, and either the AMERICAN BEE JOURNAL or ILLUSTRATED HOME JOURNAL from now until Dec. 31, 1890, for $1.20. Or, we will *give it free* for one year to any one who will send us *one new* subscriber for either of our Journals with $1.00 (the subscription price).

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	Club
The American Bee Journal	1 00...	
and Gleanings in Bee-Culture	2 00....	1 75
Bee-Keepers' Guide	1 50....	1 40
Bee-Keepers' Review	1 50....	1 40
The Apiculturist	1 75....	1 65
Bee-Keepers' Advance	1 50....	1 40
Canadian Bee Journal	2 00....	1 80
Canadian Honey Producer	1 40....	1 30
The 8 above-named papers	5 65....	5 00
and Langstroth Revised (Dadant)	3 00....	2 75
Cook's Manual (1887 edition)	2 25....	2 00
Doolittle on Queen-Rearing	2 00....	1 75
Bees and Honey (Newman)	2 00....	1 75
Binder for Am. Bee Journal	1 60....	1 50
Dzierzon's Bee-Book (cloth)	3 00....	2 00
Root's A B C of Bee-Culture	2 25....	2 10
Farmer's Account Book	4 00....	2 20
Western World Guide	1 50....	1 30
Heddon's book, "Success,"	1 50..	1 40
A Year Among the Bees	1 75....	1 50
Convention Hand-Book	1 50....	1 30
Weekly Inter-Ocean	2 00....	1 75
Toronto Globe (weekly)	2 00....	1 70
History of National Society	1 50....	1 25
American Poultry Journal	2 25....	1 50

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

Doolittle on Queen-Rearing.

Queens can be reared in the upper stories of hives used for extracted honey, where a queen-excluding honey-board is used, which are as good, if not superior, to Queens reared by any other process; and that, too, while the old Queen is doing duty below, just the same as though Queens were not being reared above. This is a fact, though it is not generally known.

If you desire to know how this can be done—how to have Queens fertilized in upper stories, while the old Queen is laying below—how you may *safely introduce* any Queen, at any time of the year when bees cay fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing;" a book of 170 pages, which is nicely bound in cloth, and as interesting as any story. Price, $1.00.

An edition in strong paper covers is issued for premiums. It will be mailed as a present to any one who will send us *two* new subscribers to either of our JOURNALS.

☞ We want these numbers of the BEE JOURNAL, viz: December, 1875, January to June, 1876, and April 30, 1884. Also No. 18, of 1884: and Nos. 2, 17, 18, 19, 20, 21, 32, 42, 44, and 48, of 1885. If any one desires to sell them—please state price. Do not send any numbers until we order them, for we only want one copy of each.

CATARRH.

CATARRHAL DEAFNESS—HAY FEVER.

A New Home Treatment.

Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and eustachian tubes. Microscopic research, however, has proved this to be a fact, and the result of this discovery is that a simple remedy has been formulated whereby catarrh, catarrhal deafness and hay fever are permanently cured in from one to three simple applications made at home by the patient once in two weeks.

N. B.—This treatment is not a snuff or an ointment; both have been discarded by reputable physicians as injurious. A pamphlet explaining this new treatment is sent free on receipt of stamp to pay postage, by A. H. Dixon & Son, 337 and 339 West King Street, Toronto, Canada.—*Christian Advocate.*

Sufferers from Catarrhal troubles should carefully read the above.

50E26t Imly.

A Special Club Rate.

A Magazine of the choice literary character which the ILLUSTRATED HOME JOURNAL sustains, will add many pleasures to any "family circle." Its beautiful illustrations and interesting reading-matter will make it heartily welcomed at every "fireside" in the land.

We desire that every one of our readers should secure its regular visits during the year 1890, and in order to induce them to do so, we will make this tempting offer:

We will Club the AMERICAN BEE JOURNAL and the ILLUSTRATED HOME JOURNAL, and mail both periodicals during the whole year 1890 for **$1.50**, if the order is received at this office before January 1, 1890.

Such a *remarkably low* club rate as the above, should induce every reader of the BEE JOURNAL to accept it without a moment's delay.

As a further inducement, we will mail the superb number for December, 1889, *free* to those who send their subscriptions early; that is, until all the December numbers now on hand are taken.

New subscribers to the above club will have the December numbers of both of the JOURNALS free—as long as the stock lasts. So the sooner they subscribe, the more they will get for their money.

A New Premium.

The National Purchasing Agency of this city issues a Membership Ticket good for the year 1890, for the sum of one dollar. This Ticket is not transferable, and entitles the holder to all discounts that the Agency can secure on goods that may be ordered, and they are in a position to obtain more or less discount on every order received.

By a special arrangement, we can offer a MEMBERSHIP Ticket for 1890 to any one sending us two new subscribers for the AMERICAN BEE JOURNAL or ILLUSTRATED HOME JOURNAL, for one year, with $2.00.

Honey and Beeswax Market.

DETROIT.

HONEY.—Demand is fair for comb at 13@15c. per lb. There is more dark honey than light. Extracted, 8@9c.
BEESWAX.—24@25c.
Nov. 11. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—Receipts of comb are averaging about as they usually do with a fair crop. Prices rule at 13@14c. for choice to fancy 1-lbs., which comprise the bulk of the receipts, very little in sections averaging 1½@2 lbs., and sells at 10@12½c.; dark, 8@10c Extracted, 6@8c.
BEESWAX.—25c. R. A. BURNETT.
Nov. 8. 161 South Water St.

KANSAS CITY.

HONEY.—Fancy white 1-lbs., 14c.; good, 13c.; dark 11c.; white 2-lbs., 13c. Extracted, white, 7c.; dark, 6c Demand good.
Nov. 11. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—1-lb. comb, 15@18c. Extracted, 7@8c.
BEESWAX.—20@25c.
Nov. 11. J. M. CLARK COM. CO., 1421 15th St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 14@15c.; 2nd grade white 1-lbs., 13@14c.; old dark 1-lbs., 10c.; new, 10@11c. Extracted, white, in barrels and kegs, 7@8c.; in tins and pails, 8@8½c.; dark, in barrels, 6@6½c.; in kegs, 6@7c. Demand steady.
BEESWAX.—22@23c.
Nov. 11. A. V. BISHOP, 142 W. Water St.

NEW YORK.

HONEY.—Extracted, white clover, basswood, orange blossom and California, 8c.; buckwheat, 6 cts.; common Southern, 65@70c. per gallon. Demand is good. Comb honey, fancy white 1-lbs., 16c.; 2-lbs., 14c. Fair 1-lbs., 14c.; 2-lbs., 11@12c. Buckwheat, 1-lbs., 11@12c.; 2-lbs., 10@11c. Demand very good for fancy white 1-lbs., and buckwheat 1-lbs.
BEESWAX.—22c.
Oct. 2. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—Demand for white clover 1-lbs. is improving, but price depends upon size and style of package, condition and appearance when received, ranging from 12@13½c.; basswood, 11@11½c.; buckwheat, 8@10c. Extracted, 6½@7½c., depending upon style and size of package.
BEESWAX.—27@28c.
Nov. 9. S. T. FISH & CO., 189 S. Water St.

NEW YORK.

HONEY.—Demand fair. Western honey arriving freely, and prices declining. We quote: Fancy white 1-lbs., 14@15c.; 2-lbs., 12@13c.; off grades and mixed 10@12c.; buckwheat 1-lbs., 10@11c.; 2-lbs., 9c. Extracted white clover and basswood, 7½c.; orange bloom, 8½c.; California, 7½c.; buckwheat, 6 cents; Southern, 70@75c. per gallon.
HILDRETH BROS. & SEGELKEN,
Nov. 6. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—It is selling a little slow. Fancy white 1-lbs., 16@17c.; common, 15@16c. Extracted, 8@9c.
BEESWAX.—24c.
Nov. 27. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—A large amount of Comb on the mardet at 14@16c for best white. Extracted at 5@8c.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Nov. 22. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—Selling slowly, especially extracted, on account of mild weather. White 1-lbs., 13@14c.; dark 10@12c.; white 2-lbs, 12@13c.; dark, 10@12c. Extracted, white, 7@8c.; dark, 5@6c.
BEESWAX.—22c.
Nov. 22. CLEMONS, CLOON & CO., cor 4th & Walnut.

Advertisements.

ANY ONE Wanting a Bee-Keeper to manage an Apiary, should write to C. D. Barber, Muskegon, Mich.

FOR SALE—My 2½ story Brick Residence, with barn and other out-buildings—5 acres attached (2½ acres in Apples, Peaches, Pears and Plums, and 2½ acres in truck garden and 500 grapes.) Also honey-house and shop, 15x30 feet, 2 stories, and 130 colonies of Italian and Hybrid Bees in Langstroth Hives. All within the suburbs of the city. Address,
J. FEW BROWN.
50A2t WINCHESTER, VA.
Mention the American Bee Journal.

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EVERY Farmer and Bee-Keeper should have it. The

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MUCH ENLARGED!

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Prices: By mail, $1.50. To dealers, $1.00. In 100 lots, by freight, 50 per cent. off.

Address, **A. J. COOK,**

35Atf **Agricultural College, Mich.**

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FOR SALE—one Given Foundation Press as good as new, as I have no use for it. Delivered on the cars for $12.00.

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NEW ONE-POUND HONEY PAIL.

THIS new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **Price, 75 cents per dozen, or $5.00 per 100.**

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WE make the **best** Bee-Hives, Shipping-Crates, Sections, &c., in the world, and sell them the cheapest. We are offering our choicest white 1-piece 4¼x4¼ Sections, in lots of 500, at $3.50 per 1,000. ☞ Parties wanting more, should write for special prices. No. 2 Sections at $2.00 per M. Catalogues free, but sent only when ordered. Address,

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BEINO

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BY DR. C. C. MILLER.

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AS PRACTICALLY APPLIED;

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G. M. DOOLITTLE,

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In this book the author details the results of his Experiments in Rearing Queen-Bees for the past four or five years, and is the first to present his discoveries to the World.

Bound in Cloth—176 pages—**Price, $1.00,** postpaid ; or, it will be Clubbed with the American Bee Journal one year, for $1.75—with the Illustrated Home Journal, for $1.75 ; or the two Journals and the Book for $2.50.

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BEFORE placing your Orders for **SUPPLIES,** write for prices on One-Piece Basswood Sections Bee-Hives, Shipping-Crates, Frames, Foundation, Smokers, etc. Address,

R. H. SCHMIDT & CO.,

25A26t NEW LONDON, Waupaca Co., WIS.

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WE are now offering our No. 1 V-Groove Sections in lots of 500, at $3 per 1,000; No. 2 Sections at $2 per 1,000. For prices on Foundation, Hives, Shipping-Crates, &c., &c., send for Price-List. Address,

J. STAUFFER & SONS,
(Successors to B. J. Miller & Co.)

31Atf NAPPANEE, IND.

Mention the American Bee Journal.

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FOR HONEY.

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Prices are as follows:

To hold 1 pound of honey, per dozen, ...	$1.60
" 2 pounds " "	2.00
" 3 " "	2.50

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DES MOINES, IOWA.

1Aly

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British Bee Journal

AND BEE-KEEPERS' ADVISER,

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TAKE NOTICE!

WE will allow a **heavy discount** on the Orders received this **Fall and Winter.** Estimates furnished, and correspondence solicited. New **Price-List** ready Dec. 1st,

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WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

BRIGHT ITALIAN Bees and Queens, Bee-Hives, Sections, Foundation, etc.

12A1y **H. H. RUETER,** Baxter Springs, Kan.

Mention the American Bee Journal.

DISCOUNT NOTICE.

DURING the months of October, November and December I offer a **DISCOUNT** of 10 to 6 per cent. for GOODS purchased for next season's use.

☞ **Price-List Free.**

Address, **J. M. KINZIE,**

20A1y ROCHESTER, Oakland Co., MICH.

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EXTRACTED HONEY FOR SALE.

WE have a Large Quantity of CHOICE WHITE **EXTRACTED HONEY** For Sale, in kegs holding about **200 pounds** each, which we will deliver on board the cars at **8 Cents** per pound. Orders are solicited.

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Voice of Masonry and Family Magazine.

Three years a Paper and twenty-five a Magazine. Now unexcelled. Contains fine Portraits and Illustrations, and a great variety of articles, stories and poems for Freemasons and their families; also Eastern Star, Masonic Gleanings and Editorial Departments. Price per year, $3.00.

JOHN W. BROWN, Editor and Publisher,
182 & 184 S. Clark Street, Chicago, Illinois.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Dec. 21, 1889. No. 51.

EDITORIAL BUZZINGS.

CHRISTMAS.

"So now is come our joyfulest feast,
Let every one be jolly;
Each room with ivy leaves is dressed,
And every post with holly."

☞ Dr. C. C. Miller was not at the International, and his genial face was sadly missed.

☞ At the Paris Exposition, the awards to Americans were very numerous. Among them we notice a Silver Medal to Chas. Dadant & Son, for "Appliances in Bee-Culture," and a Bronze Medal for "Honey." Honorable mention is made upon boney exhibits to E. R. Newcomb and Mary E. Ross.

☞ The new officers of the "International" are men of extensive experience in honey-production and practical management of the apiary. We may reasonably expect that the next Convention will eclipse all former gatherings of American apiarists.

☞ We understand that the members of the "International" were photographed, and that an engraving of it is to appear in *Gleanings* soon. The "Life Members" being absent, will lose their places in the engraving.

Presents are now in order. Can you think of anything more welcome to your friend, than a year's subscription to the ILLUSTRATED HOME JOURNAL? It would be hard to find any better present for the money—or one that would bring more pleasure throughout a whole year.

To Our Friends.—This is the subscription season, when people generally select their periodicals for the coming year. May we ask you, dear reader, to exert your influence among your friends, in order to induce them to take one or both of our JOURNALS? They aim to benefit all who read them—they are practical, and their tone pure. In price they are so low that none can say they are too poor to subscribe for them. We desire to place the ILLUSTRATED HOME JOURNAL in the home of every person in America, and the BEE JOURNAL in the hands of every one interested in bee-keeping. We ask our friends to help us in this endeavor, and in return we will help you. If sent this month, $1.50 will pay for both JOURNALS for 1890. Now is the time to get your full money's worth.

☞ Dr. A. B. Mason, ex-President of the "International," has been selected to have charge of the Bee and Honey Exhibit for the United States at the World's Fair of 1892, and Mr. R. McKnight is to superintend the Canadian apiarian exhibit. These appointments are excellent ones—in fact we do not believe better selections could have been made. Both men are experienced in that line of business, and we may look for something creditable for North American bee-keepers.

☞ The *Canadian Bee Journal* has our thanks for kind mention and regrets at our enforced absence. Just at that time Mrs. N. was much worse, but now she has rallied again. It is a very treacherous and fitful disease. We should have enjoyed the rare treat of meeting our Canadian brethren, and much regret that we could not have done so.

Our Premium-List Supplement describes many articles of great merit, and that are useful in every family. We have carefully selected them to offer as premiums for getting up clubs for our JOURNALS. We do this to *induce* our friends to devote a few hours of labor for us. Our JOURNALS are first-class in their lines, and are needed everywhere. We do not want any one's labor without remuneration, and the articles offered will pay for the labor of getting up clubs, and thus the arrangement will prove to be for our mutual advantage.

☞ The BEE JOURNAL gives 52 dividends in a year on an investment of one dollar. Can any one desire a better investment, or richer returns?

Postal Notes are no safer to use in letters than bank bills. Any one can get the money on them. A Money Order can be obtained at the post-office or at the express office for 5 cents (only 2 cents more than a Postal Note), and is perfectly safe; if lost it can be re-issued.

The Report of the International Convention occupies nearly all our space this week. It is the *newest news* extant, and as such will be read with great interest. The essays are excellent, and the discussions "are timely and good." We shall shortly publish the Report in pamphlet form, with the new songs and music, and also portraits of the new and retiring officers. It will make quite a complete and useful book for reference. Price 25 cents. Or with a brief History and Report of all the 19 previous sessions, 50 cents, postpaid.

Christmas Presents.

A novel and pretty way of distributing Christmas gifts is to set your dining-table as you would for a meal. Put on your choicest cloth, and at each one's accustomed place set a soup-dish. The center of the table may have some pretty decorations arranged to suit the fancy; a pot of tall ferns would be lovely. Festoons of evergreens and holly may hang from the chandelier or lamps, as the case may be. All the small gifts can be put into the dishes, while others may be neatly arranged in front. Such gifts as sleds, rocking horses, etc., should be placed where the chair usually stands. Let some one have special charge of the arrangements. When all is ready, the bell may be rung, as at dinner time, and the household called together. In this way the older folks may share the surprises and pleasures.

Let me whisper a word or two more to my young readers, before I lay down my pen. Perhaps you are happy; perhaps you have all that you can wish to make your cup of joy run over; but stop and think a moment. Do you not know some one who may be less fortunate; whose Christmas will be empty and dreary, unless some one else (which may be *you*) brightens it? Remember, even in your gladness, that "it is more blessed to give than to receive." The giving of one little token to some poor child will bring you much additional joy. —*American Agriculturist for December.*

The Union.—Here is what Brother Heddon says when sending his Vote and Dues for 1890:

I know the value of promptness. The Union has done so well that I vote for all the old officers except James. When you want more money than these dues amount to, I trust every man of us is willing to be drawn on for another assessment. Is it not strange that we have so small a membership? What can our brother bee-keepers be thinking of? Is it any wonder that so many fail? We have a rule declaring that the Union will defend no member against a storm whose clouds were gathering *before* he joined. This is as it should be, I feel sure. I consider this the main point to induce apiarists to become members.

JAMES HEDDON.

☞ The Works of Scott and Dickens are not like the "novels" of to-day—both are founded on facts—and are well written in excellent English.

CORRESPONDENCE.

QUEENS.

Several Criticisms Answered on Rearing Queens.

Written for the American Bee Journal

BY G. M. DOOLITTLE.

I notice by the bee-papers, that Dr. G. L. Tinker and others claim that the plan I gave in my book, of having queens fertilized above a queen-excluding honey-board, is not practical. In regard to this, all I have to say is, that it proves a success with me when used as I have given in the Appendix to the book, and I consider it entirely practical in this locality.

In order that the reader may judge whether I know what "practical" work is or not, along this line, I will give the working of the plan with one colony, which is only a sample of numbers worked in the same way:

When the colony was strong enough to occupy a second story, the brood in the lower story was contracted by taking out two frames in the egg and larval form, and the other combs of honey and pollen, and putting in two division-boards, or dummies, one on either side, in place of the so taken out combs, thus leaving 7 frames of brood below. The upper story was then put on, after putting on the queen-excluder, and contracted to six combs, two of which were those containing the eggs and larvæ taken from below, and the others were the combs partly or entirely filled with honey, together with one empty comb taken from the shop. This gave the colony 13 combs instead of the 12 occupied before.

The next day they were given a frame of prepared queen-cells between these two frames of brood, and as the honey was coming in quite freely, more combs were given at each side as was needed, so that when it was time for the queen-cells to hatch, the upper story contained all the combs that it would hold, all of which had more or less honey in them, and were well covered with bees.

At this time, one comb of honey was taken out, so as to make room for the two queen-excluding division-boards, which were slipped down in the grooves made for them. The two combs containing the now sealed brood were placed over behind the excluders, one on either side, with one of the nearly-mature queen-cells on each, while a frame of honey still remained in this apartment. At this time the other mature queen-cells were used, two more frames of eggs and larvæ put in the place of two frames of honey taken away, and another lot of prepared cells placed between them, as at first, and thus the colony was kept rearing queens all the season in this central apartment.

The next day there was a queen in each end of the hive where the cells had been placed, while in three or four days more the holes in the side of the hive through which these virgin queens were to pass out to meet the drones, were opened, and left so till the tenth day, when an examination showed two laying queens. These were then taken out and sent off, and two more nearly-mature cells put in their places. Meantime the queen below was keeping every available cell occupied with brood, and as I took the two frames of eggs and larvæ from the other hives to use above after the first, the colony was rapidly getting stronger.

About the time the third lot of queens hatched, the colony swarmed, sending out a very large swarm, which was hived in a separate hive.

The operations with the old hive was continued right along just the same as before, except that for about two weeks I did not place any prepared frames of queen-cells above, on account of there being too few bees in the hive to rear the best of queens. In due time the young queen which hatched from cells left below after swarming, became fertilized, and filled the lower hive with brood, just the same as she would have done had there not been any virgin or laying queens above, as the case might be. If my memory serves me rightly, I sold 14 queens from the upper story of this hive, took much extracted honey, or honey in the frames, and in the fall had 2 good colonies for winter.

I relate this, not only to show that the thing is practical, but also to contradict the statement which has gone out, that young queens can only be so fertilized where there is an old or failing queen below. The queen that went out with the swarm was one of my best queens, reared the season before, while no one will say that the last one was an old or failing queen. I said in the start, that this one was only a sample of others, but I will modify it by saying that none of the others worked for queens in the above way swarmed, otherwise the others were the same, and none of them had their queens superseded, thus showing that none were "failing."

Mr. Pratt, and others, seem to think that they must make colonies queenless or use queenless bees to start queen-cells for good queens to be reared. After the cells have been in these queenless colonies two or three days, the partly-finished queen-cells are then given to the bees in the upper stories to finish. After carefully testing this matter for several years, I consider this a waste of time, and, worse still, for queenless bees will not rear as good queens as will those that rear queens while the old queen is still present in the hive.

The claim is made that the larvæ are neglected when placed above, which may be so when no precaution is used by way of contracting the brood-chamber below, or having too much room for the size of the colony, but when fixed as I have given above, there are as many young bees above, around the the queen-cells, as in any part of the hive. I say "young bees,"—by this I mean such bees as feed the larvæ, build comb, etc., and not the white, fuzzy ones which are just hatched, and perform no part of these operations, no matter where they are. When honey is not coming in, the colony rearing queens is always fed, for bees do not rear really good queens, under any circumstances, where no sweets are to be carried from fields or feeder.

Lastly, I have read Mr. Alley's article, on page 744, and care to notice only two items in it, being perfectly willing to leave the matter to the readers for decision, and for them to adopt whatever plan they desire for rearing queens.

The items alluded to, are, first, where he refers to the making of the cell-cups as being "fussy," and says that the labor of using his method "can be performed in less than one-half the time required to make the artificial cell-cups." While no one that has used the two methods will believe any such statement (but for the sake of argument, let that be admitted), yet no one of reasonable mind would throw away the cell-cups on that account, for by their use the cells can be handled, after they are built, with perfect safety by the most inexperienced; and can be taken from where they are built, and placed in nuclei, *in less than one-half the time* than those built out from comb. Thus we gain all the time lost, and handle the cells with a safety which secures success every time, even in the hands of those who have only a few bees, and little or no experience; the latter being the class for whom my book was intended, as well as for the professional queen-breeder.

The second item is where Mr. Alley seeks to convey the impression that I rear, or recommend rearing, queens in an upper story where there is "no brood," but where there are "dry combs and old bees."

On page 62 of my book, these words are found: "I raised two frames of brood (mostly in the larval form) above, so as to get as large a force of nurse-bees about the prepared cells as possible, to properly feed the queen-

larvæ. The prepared frame was placed between the two with brood in them."

Again, on page 64 are these words: "The cells are better supplied with queen-food, where unsealed brood is placed in the upper story every 10 days—enough better, in my opinion, to pay for the extra work."

Elsewhere in the book I explain how feeding is always resorted to when honey is not coming in plentifully from the fields, so that there is never any "dry combs" in the upper story; and by trying to carry this idea of "no brood, dry combs, and old bees," Mr. A. shows that he has never read my book on queen-rearing, so that he knows nothing of what he is talking, or else he wilfully misrepresents for the sake of carrying out his argument. No matter which "horn of the dilemma" he may take, the reader can clearly see what his intention was by so writing.

No one has ever recommended the rearing of queens with only old bees and dry combs, of late years, that I know of, and surely the foregoing, which is substantially the plan as given in my book (only in outline), does not convey any such impression. As I have said before, the book was not written to harm any one, but, on the contrary, to add my mite to the fund of knowledge already in the world. For this reason I feel willing to accord to every one the privilege, which I consider my own, viz: After hearing a matter, to decide upon that which I think best adapted to my wants.

I have faithfully given in the book all that I considered of value, which resulted from six years of hard labor and experimenting along the line of queen-rearing, and if it benefits no one, I still have the consolation left me, of having tried, to the best of my ability, to be of use in the world, and of having cleared $500 each of those years, to put into my own pocket.

P. S.—Since writing the above I have received a letter from Mr. Alley, saying:

"I must acknowledge, however, that had you given the plan of placing brood in the upper hive with the cell-cups, you would have had a point a long distance ahead of the world."

This shows that Mr. Alley had not read my book when he wrote his article for the AMERICAN BEE JOURNAL, and I gladly take back what I said about his "wilfully misrepresenting." Ignorance is preferable to being wrong intentionally, at all times; although criticising that with which one is not familiar, so as to give a wrong impression, is hardly excusable. In the above quoted paragraph, Mr. Alley pays high tribute to the plan of rearing queens as given in my book, and places the method "*a long distance ahead of the world.*" G. M. D.

BEE-TALK.

International Convention at Brantford, Ont.

Written for the American Bee Journal

BY W. Z. HUTCHINSON.

The International American Bee-Association, held its 20th annual conventions on December 4, 5 and 6, 1889, at Wickliffe Hall, in Brantford, Ontario, Canada.

The Convention was called to order at 1:30 p.m., with President A. B. Mason in the chair. The following members then paid their dues:

J. Alpaugh, St. Thomas, Ont.
D. Anguish, Brantford, Ont.
Jos. Armstrong, Cheapside, Ont.
George H. Ashby, Albion, N. Y.
J. S. Barb, Oakfield, O.
R. Aull, Warwick, Ont.
G. W. Barber, Harford, Ont.
T. Barkett, Brantford, Ont.
H. J. Beam, Cheapside, Ont.
J. R. Bellamy, Blackbank, Ont.
Chas. Brown, Drumgrain, Ont.
Ira Burrows, Drayton, Ont.
J. C. Calvert, Medina, Ohio.
Rev. W. F. Clarke, Guelph, Ont.
Thos. Conway, Eramosa, Ont.
Prof. A. J. Cook, Agricultural Cottege, Mich.
W. A. Crysler, Chatham, Ont.
C. P. Dadant, Hamilton, Ill.
J. Y. Detwiler, New Smyrna, Fla.
S. A. Dickie, Brantford, Ont.
Martin Emigh, Holbrook, Ont.
A. R. Fierheller, Mt. Elgin, Ont.
C. Flanders, Boston, Ont.
J. A. Foster, Tilbury Centre, Ont.
F. A. Gemmell, Stratford, Ont.
Wm. Goodyear, Woodstock, Ont.
Wm. Granger, Wanstead, Ont.
J. B. Hall, Woodstock, Ont.
A. E. Hoshal, Beamsville, Ont.
Dr. A. E. Harvey, Wyoming, Ont.
O. L. Hershiser, Buffalo, N. Y.
William Hill, St. Thomas, Ont.
Geo. E. Hilton, Fremont, Mich.
J. Hislop, Strathburn, Ont.
M. B. Holmes, Delta, Ont.
R. F. Holtermann, Romney, Ont.
J. R. Howell, Brantford, Ont.
W. Z. Hutchinson, Flint, Mich.
Andrew Johnston, Stratford, Ont.
E. D. Keeney, Arcade, N. Y.
Wm. Knowles, Carholme, Ont.
Arthur Laing, Acton, Ont.
Robert Langtry, Benton, Ont.
Dr. A. B. Mason, Auburndale, Ohio.
Fergus McMasters, St. Marys, Ont.
R. McKnight, Owen Sound, Ont.
C. McNally, Simcoe, Ont.
F. H. Macpherson, Beeton, Ont.
R. L. Mead, Nassagaweya, Ont.
Thos. Moore, Carholme, Ont.
G. H. Morris, Hatchley, Ont.
Elias Mott, Norwich, Ont.
L. L. Mullock, Binbrook, Ont.
John Newton, Woodstock, Ont.
R. L. Patterson, Lynden, Ont.
A. Pickett, Nassagaweya, Ont.
E. R. Root, Medina, Ohio.
F. A. Rose, Balmoral, Ont.
E. Rosebrugh, Branchton, Ont.
T. Ruddle, Oustic, Ont.
Eugene Secor, Forest City, Iowa.
R. E. Smith, Tilbury Centre, Ont.
Wm. Spedding, Clifford, Mich.
J. Sturgeon, Kincardine, Ont.
E. W. Tanton, Stratford, Ont.
R. L. Taylor, Lapeer, Mich.
Mark Tovell, Guelph, Ont.
Thos. Waken, Glenoak, Ont.
John Yoder, Springfield, Ont.

Mrs. J. C. Calvert, Medina, Ohio.
Mrs. C. P. Dadant, Hamilton, Ill.
Mrs. Dr. A. B. Mason, Auburndale, Ohio.
Mrs. F. H. Macpherson, Beeton, Ont.
Mrs. E. R. Root, Medina, Ohio.
Mrs. J. Sturgeon, Kincardine, Ont.
Mrs. John Yoder, Springfield, Ont.

LIFE MEMBERS—*Not present.*

D. A. Jones, Beeton, Ontario.
Thomas G. Newman, Chicago, Illinois.

This was one of the most successful meetings that this International society has held for several years, both in point of numbers, and in the character of its discussions.

The first essay read was from Thomas G. Newman, Chicago, Ills., upon

Disposing of the Honey Crop.

Mr. President, Ladies and Gentlemen:

A Yankee, down East, who has given the subject allotted to me briefly to discuss, a thorough study, got up a placard for his salable honey, which read like this: "Hot Rolls and Honey will Draw Human Flies." This he placed up over an attractive display of honey, where it was kept for sale. It was put up in the nicest shape, each package was done up in white tissue paper, and put in "cartons," having nice labels printed in two colors, and little string handles, all ready to be purchased and taken home safely as well as conveniently.

It is no wonder that he never had a surplus crop of honey left on his hands! The cry always was for **more**—no matter how much was produced.

We have in North America nearly a a hundred millions to feed. If we divide the honey crop evenly among those, in the United States and Canada, who are hungering for a pure sweet, it will give them but a small taste indeed. If it was placed within reach of all, the whole crop would not last over 20 days. All that is needed is even distribution, an attractive article, and a diffusion of knowledge concerning its consumption and value as a food and for medicinal purposes, and recipes for its use.

To place 100 "Honey Almanacs" with the honey-producers' name and address on them in any town, would sell all that can be produced near it, if the article be put up in attractive packages.

Quite lately we witnessed a little scene which ought to teach a good lesson. A lady went into a store and asked to see some honey in the comb. She was shown some, but turned away quickly in disgust, saying that she did not want that kind!

Do you ask what kind it was? Well, I will tell you. It was of rather a dark color, put up in one-pound sections. The sections were covered with propolis, which had not been scraped off, nor had there been any attempt at it! There had been no separators used in the surplus arrangement, and consequently the combs were very unevenly built, and, as they had been packed in the crates, some combs had rubbed against the protrusions in others, and it was a dripping, sticky, and unsightly affair.

Such work as that would ruin any honey market, and if an apiarist will not learn better, and work in accordance with the advanced ideas in the sunshine of the present, he had better quit the business, and leave it to others more worthy to share in the newer ideas and advancement of this progressive age. THOMAS G. NEWMAN.

The subject introduced by Mr. Newman was then discussed in the following manner:

R. L. Meade found his greatest trouble to be from farmers and small bee-keepers, who rushed their crop of honey on the market as soon as they got it off, and who sold it at a very low figure. He had received 2 and 3 cents more per pound for his honey than they did, right in the face of the opposition, and it was because the customers who bought of him were willing to pay that much more for it, because they knew that his product was clean and good, and well cared for. He had sold his entire season's crop at 12½ cents, wholesale, and 15 cents retail. In his section, however, fruit was a complete failure.

F. A. Gemmell kept up his name by furnishing only the very best article of honey.

J. B. Hall sold his honey "on his name." He put his name and address on every section, and he had known such method to bring him orders from points a thousand miles from home. If he had any honey that did not come up to his standard of perfection, he sold it at a less price, and he was particular not to put his name on it.

Prof. Cook here asked how amateurs were to get their names up, as those who had previously spoken were all old hands at the business.

G. Sturgeon kept bees, and had worked up his reputation by keeping his honey clean and in tempting shape. He never fed his bees sugar-syrup, and consequently no one could charge him with adulteration of any kind.

Prof. Cook could not see that feeding sugar-syrup for wintering purposes was going to hurt a man's reputation, if he exercised reasonable care.

Mr. Sturgeon—How will it be prevented?

Prof. Cook—Use other combs, and extract only from the upper and second story.

"Does it make any difference in disposal, as to whether the honey is liquefied or granulated?"

R. F. Holtermann—It makes a great difference. The great bulk of my customers want it in a liquid state, and I sell the great bulk of mine in gem jars.

J. B. Aches' market also demanded liquid honey.

A. Pickett considered it the most natural to have honey in the liquid state, and found it best suited to his trade.

How Can Propolis be Reduced to a Minimum?

J. B. Hall—Go some place where there is no propolis, or take the crop of honey off by July 20, before which there is very little propolis in my district.

G. Ashby—Make everything a proper bee-space—5-16 of an inch.

Mr. Holtermann—The bee-space will, of course, help materially, but to get off the honey early is the best remedy.

R. L. Taylor took his honey off as soon as possible before there was much propolis.

J. Alpaugh coincided with the views of those who took honey off early.

W. F. Clarke wished to know when there was lots of honey, if the amount of propolis would be in proportion.

Prof. Cook was of the opinion that there would be. He expected to have heard somebody say that the double bee-space helped to reduce the propolis very largely.

Dr. A. B. Mason used double bee-spaces, and found that they were helpful.

R. L. Taylor always uses double bee-spaces.

F. A. Gemmell uses both double and single bee-spaces, and finds more propolis on the sections above single than double bee-spaced honey-boards.

What Size of Sections is Best?

The consensus of opinion was in favor of sections holding one pound, and the size was to be either 4¼x4¼ and 7 to the foot, or 4¼x4¼x1½ inches.

EVENING SESSION.

The meeting was called to order at the appointed time by President Mason, who then called upon Mayor C. B. Heyd. The Mayor promptly responded. The following is a short synopsis of the

Mayor's Address of Welcome:

The very pleasing duty devolved upon him of welcoming the Association to the city of Brantford. Brantford had a name for extending hospitality. It was an attractive and pretty city, and he had much pleasure in extending a hearty welcome. He was happy to see so many Canadians present, but he was likewise happy to see such a large number from across the lines. He was glad of the feeling of amity which existed between the two countries. The objects and aims of the people were apparently one and the same. He would not say anything about the little animal that had brought them together. He did not know whether it was an animal or an insect. He was very fond of the product of the bee, but did not want any closer acquaintance with it. He had, when a boy, become acquainted with it, and the remembrance would undoubtedly remain with him as long as he lived. Since that time he had preferred not to renew the acquaintance.

We have many beautiful buildings and also an hospital, which would be well worth a visit, as well as the House of Refuge, where our aged and infirm are taken care of. Then we have the Blind Institute, where the unfortunate blind were taught and educated to earn their own living. He would, on behalf of Principal Dymond, extend a hearty invitation to members of the Bee-Association, to visit the Institute, also to visit the works of A. Harris, Son & Co., which was one of the largest manufactories in the country, and a hearty welcome would be given. He would not trespass on their time, but would give way to those who would speak on the bee-question. He would particularly welcome the ladies, who had graced the Convention with their presence. He hoped that the Association would have a most prosperous meeting.

Ald. S. G. Read seconded the Mayor in his address of welcome.

Mr. Clarke, President of the Ontario Association, extended the welcome of all Ontario, of which Brantford was but a small part. If they had been going to choose a model city to show the American delegation, Brantford would be that city.

A quartette, composed of Messrs. Liddell, Pickles, Shapley and Blasdell, with Miss Eva Waters presiding at the piano, rendered two excellent songs.

Prof. Cook was called upon to respond to the addresses of welcome which had been given. He was quite at a loss to know why he had been called upon. But he was sure that a glad welcome always awaited the Americans who attended the conventions in Canada. He had been to Ontario before, and the Americans said they never had anything like the welcome they had received at Toronto, and he was prepared for the reception they had received to-night. They had read some things about fishing. He was glad they had come, as this welcome had assured them of more than a 7-mile limit. There was no section in the world which could compare with Ontario as a honey-producing district. He would not take up any further time, but say they had had a royal greeting, and would go away thinking more of the brothers on this side of the line, and hoped the feelings extended on both sides.

Dr. A. B. Mason then read the following, as the

President's Annual Address.

Ladies and Gentlemen of the International American Bee-Association:

Some one has very truthfully said that this age of civilization is not without its false gods and their worshippers. No evil of the Nineteenth century is more universal. There is one shrine at which almost every one bows with a devotion scarcely excelled by paganism—it is at the shrine of fashon; and we, as bee-keepers, are not an exception to the rule. Bee-keepers' conventions are fashionable, and I doubt not nearly all who can afford the time and money to do so, and, as in the fashionable world, probably some who cannot, are present with us to-night.

It gives me pleasure to meet you all at this annual gathering, but especially those who have been so long and favorably known by their excellent contributions to our bee-literature; and added pleasure comes to me in the opportunity it gives of meeting, face to face, so many of my Canadian relatives (cousins, I believe), who have so freely given me the credit of having an acrimonious feeling towards everything Canadian or English. It is not the first time I have received credit for more than I have deserved, and it is somewhat comforting to know that in this I have plenty of good company.

If you all knew, as some of you do, what a corporeal infliction has been threatened me, evidently by a Canadian, in case I "dared to put foot on Canadian soil," you might wonder how I dared to "beard the 'lion' in his den," and be in attendance at this convention. But when I tell you that a prominent member of this Association (also a Canadian), recently wrote me that if I *was not here*, "a vote of censure will be passed," you will readily see that I was "in a strait betwixt two," and I at once decided to run the risk of getting the first, rather than to suffer the last.

There is a fascination about courage, that human nature worships. No matter how uncouth, every one finds admirers the moment it is authentically announced that he is brave; and so, from this first and best of animated nature, the characteristic of unfailing courage is universally adored. In this instance, I lay no claim to this adorable quality, for in a letter received a few days since, from one of Canada's noted bee-keepers, he says: "Now don't let your fears get the better of you. I shall try hard to be there, and won't let anybody hurt you." So, as you see, I am here. But another thing confronts me, for on a postal, written with type-writer, some friend, who is very anxious about how I conduct myself, says: "Do try to overcome your surly manner at the convention. At least don't be cross *all* the time."

I can assure you that the anticipated pleasure in meeting with Canadian bee-keepers has had more to do with my being here than any other one influence, although I am grateful for the privilege of being, if only for a few days, in a country where "honey drops from the trees." How eagerly we scan the pages of the bee-papers for something from the pen of our favorite writers, but how much more pleasure in meeting such face to face in a gathing like this. As so fitly expressed in the last *Review*, "The one is a love letter; the other, the lover himself."

Things that address the ear are lost and die in one short hour; but that which strikes the eye, lives long upon the mind; the faithful sight engraves the knowledge with a beam of light.

I doubt not the most, if not all of you, have come here with the hope and expectation that this would be one of the most enjoyable and profitable meetings ever held by this Association, and such as bee-keepers delight in attending. That such may be the case is doubtless the wish of all present. To make this wish a veritable reality, can best be accomplished by each one taking part in the discussions, and so contribute their portion of information for the general good.

Soil, air, sun and moisture are requisites to vigorous vegetable growth, but not the only requisites, for the house-plant has these; but in order to reach its most perfect development, it must be removed from its root-bound condition to its native soil, and the open air where root and branch may appropriate the nourishment that is all about it. In the domain of thought the same is true, and any one wishing to reach the highest attitude of attainment must have fellowship and communion with other minds; "establish a commerce for his thoughts." He must *give* as well as *receive*.

Good sense will stagnate. Thoughts shut up want air.
And spoil, like bales unopened to the sun.
Thoughts, too, delivered is the more possessed;
Teaching we learn, and giving we retain.
'Tis thoughts, exchange, which, like the alternate
Rush of waves conflicting, breaks the learned scum,
And defecates the student's standing pool.

Without this and kindred organizations, each bee-keeper would have to depend largely upon his own resources and experiments; struggling on without adequated knowledge; by slow and tedious process, gathering important facts to be used for a brief period, and then, with the possessor, be buried forever out of sight.

Men thus acting for themselves follow in a beaten path, or become selfish and reticent of their knowledge; "wise in their own conceits," and jealous of their dearly-acquired wisdom. If such an one gets into a gathering of this kind, he seems to feel that there is nothing for him to learn, and we rejoice when the scales fall from his eyes.

We have met here for the very same purpose for which other bee-keepers' conventions are held, which was so appropriately and beautifully told by the editor of the AMERICAN BEE JOURNAL, in his address at the recent meeting of the Northwestern Bee-Keepers' Society, at Chicago.

"We have come here," he said, "to talk over the past and learn wisdom from our experiences, and those of our co-workers. .....Light and knowledge, and power have been man's inheritance as the days have come and gone. The poet wisely remarks that—

"The waves that moan along the shore,
The winds that sigh in blowing,
Are sent to teach a mystic lore
Which men are wise in knowing.

"To this end have we come together, so that the wisdom of each one may be communicated to all, with the magnetic currents of personal contact and hearty fellowship.....

"Mistakes are made, and reverses come, but these do not discourage, they only strengthen the determination to succeed. .....Of couse we shall differ in our opinions, as do the greatest and best of men, but this should not give rise to any feeling of ill-will."

With this introduction, allow me to call your attention to some things in our specialty that have been, and are, attracting our attention and eliciting discussion in the bee-periodicals.

Within a few months, a new "disease" has made its appearance among some of the bees of Michigan, commonly recognized by its name, "digested nectar," and if our Canadian bee-keepers are not very careful, it will cross the line and get mixed with their "pure crystal linden" honey. I sincerely hope that the "Wolverines" will, if possible, confine it to "its native heath." It might not be unwise for this convention to pass resolutions of sympathy for such bee-keepers as have the malady in their apiary, and appoint a committee to fully investigate and report upon the matter, giving them full power to send for persons and papers.

Perhaps the thing most desired by leading apiarists is the prevention of swarming. If what has recently been brought to our notice, in the invention of wooden brood-combs, by Mr. Aspinwall, of Michigan, proves to be what is claimed for it, that desire will, ere long, be satisfied. But

How seldom do our dreams come true—
The very thing our fancy lets
Us hope in time will be our own,
Some other fellow always gets.

We fall in love; the mind's diseased,
The brain is in a foolish whirl;
And while we worship from afar,
Some other fellow gets the girl.

Ah! what a torment life would be
If we were of all hope bereft,
That in some fairer world than this
That other fellow would get left!

During the present year there has been added to our bee-literature G. M. Doolittle's book on "Scientific Queen-Rearing;" and the Dadants have done the bee-keeping world a lasting favor in their splendid revision of "Langstroth on the Honey-Bee." Its division into numbered sections, and the frequent references from one to another, with its copious index and superb engravings make it *one* of the most, if not the *most* desirable work ever published on bee-culture, and it should be in every bee-keeper's library. These, with Prof. Cook's "Manual of the Apiary," "Quinby's Bee-Keeping" revised, and the "A B C of Bee-Culture," with a few of the many valuable and interesting books and pamphlets that have been written and published by the editor of the AMERICAN BEE JOURNAL, supplemented by the reading of half a dozen, more or less, of our leading bee-papers, will put the average bee-keeper in pretty good shape to get both pleasure and profit in attending and taking part in bee-conventions, whether there be "an axe to grind" or not.

But the "latest thing out" is a Honey Almanac for 1890, issued by the publishers of the AMERICAN BEE JOURNAL, and to my narrow vision it has entirely demolished the saying that "there is nothing new under the sun." At least one copy of it should be in the house of every family in Canada and the United States, and it rests with bee-keepers to see that such is the case.

The sending of bees by the pound through the mails has recently come under discussion. As is usual, such a course has its advocates and opponents, and would it not be well for this convention to consider the matter, and take some action in regard to it?

The queen of wild-flowers and honey-plants, the golden-rod, as a national flower for the Yankees, whose praises of late have been so frequently, fervently and eloquently sung, might not be averse to receiving some amorous attentions from the members of this association, without blushing. When in the field nodding to the breezes, or as a bouquet on the breast of a lovely woman, it possesses a beauty unequalled and unsurpassed by any other flower.

The honey crop in 1887 and 1888, to many of us, was a total failure, and to some even worse. For others, there was a partial crop, and to but few was there the usual yield, but a fairly good crop the past season, revived the failing spirits of many, if not the most of us, and I am quite confident that some who are here would not have been, had the honey yield been as light in 1889 as it was the two previous years. Owing to the meagre yield in 1887 and 1888, the price at some points was materially greater than it has been this year.

Taking the highest quotations of the market on the first of each of the last six months of each year, the price for comb and extracted honey was as follows:

1887.		1888.		1889.	
Comb.	Ext.	Comb.	Ext.	Comb.	Ext.
		San Francisco.			
15½c,	5c to 8c,	12c,	5½c to 6¾c,		
		St Louis.			
14c,	4¼c to 6c,	15c,	4½c to 6c,	12½c,	5c to 6¼c
		Chicago.			
18c,	8 4-5c.	17c,	8c.	13c,	8c,
		Cincinnati.			
16½c,		15½c,		15½c,	
		Detroit.			
16¼c,		16¼c,		6c,	
		New York.			
16¾c,	15c to 9c,	17½,	7½c to 9c,	15c,	7c to 8½c

In Detroit, but four quotations are given for extracted honey—in December, 1887, and October, 1888, ten cents; in December, 1888 and 1889, nine cents.

In Cincinnati in July, August and September, 1887, 3 to 7 cents; October and November, 3½ to 7 cents; December, 3½ to 8 cents; in 1888 it was 5 to 8 cents except October and November, when it was 4½ to 8 cents; in 1889 the constant quotations have been 5 to 8 cents.

There are said to be over 300,000 bee-keepers in the United States and Canada, and if each apiary contained but 15 colonies, the number reaches 4,500,000; and if these produced but an average of 30 pounds, the total honey production would be the enormous amount of 135,000,000 pounds, which at 10 cents per pound would amount to the snug sum of $13,500,000. If each colony produced an average of one pound of beeswax, and it was worth 20 cents per pound, it would amount to $900,000.

The Wiley liars, in their statements about manufactured honey, have found their *more* than match in Thomas G. Newman, who gives them no peace or comfort, but pounces upon them with a vigor that is worthy of the cause, and has made this portion of the Ananias family either drop dead at his feet, or has so weakened their voices as to make them almost inaudible. The other bee-papers have also done good service in this line, and the editor of *Gleanings* has a standing offer of $1,000 to the person who will prove that the "wily" *lie* is the *truth*—a pretty good premium for one whose word is valueless.

Apis dorsata, and the "coming bee" have been sought for by our Mr. D. A. Jones with a push, energy, and perseverance that would not have dishonored a Yankee, and as yet without success. Well might he with the poet Secor say:

'Tis thus we're reminded, as time and again
Our hopes in things earthly are shattered,
That Solomon said, all things are but vain,
No matter how much they have flattered;
One certain, pure joy,
Content without alloy,
Shall come when ambitions are scattered.

But to the editor of one of Canada's bee-papers belongs the honor of recommending the most feasible plan yet suggested for securing *Apis dorsata*. He says: "Owing to the difficulty of transporting bees alive, we would suggest that the next enterprising individual take a package of.... egg-preservative with him aud secure drone and worker eggs and preserve and ship them to America, where they might be put in strong colonies, the drone eggs first, and the fertilized ones later, and *Apis dorsata* shall be ours."

The editor of the AMERICAN BEE JOURNAL thought so well of the scheme, that he suggested the name of a party who would take a half-interest in the enterprise. Who knows but that ere another gathering of this association, some enterprising Canadian or zealons Yankee will have acted upon the suggestion of the wide-awake editor, and have secured and introduced the "coming bee?"

Last year, through the efforts of your presiding officer, America's bee-keepers' poet laureate, the Hon. Eugene Secor, of Iowa, was induced to write two bee-songs, and our sweet singer, Dr. C. C. Miller, of Illinois, put "wings" to them in the shape of music, and the editor of *Gleanings* put them in print, and furnished a hundred copes of each, free of charge, for use at the Columbus Convention; and this year. there has emanated from that hive of industry, the office of the AMERICAN BEE JOURNAL, another bee-song, the music of which is familiar to many, if not to all of you, a hundred copies of which Mr. Newman has furnished in the nice shape you see, for use at this meeting.

Last winter, I again tried to press Mr. Secor into service, and get more of "that which cheers, but does not inebriate." A portion of his reply was, "We have had a little 'old-fashioned' weather out here this winter—about 40 feet below zero," and adding, "Don't you pity us poor heathens who live—

'Way out upon the prairie, where
No Sabbath bell is heard.
No music but the sand-hill cranes,
And breezes, blizzard stirred?"

But keeping in mind the injunction, "be not weary in well-doing," and through the kindness of Dr. Miller, in writing the music, and the publishers of the AMERICAN BEE JOURNAL in printing it, we have another song that we can claim as our own; and all this gathered-grandeur without cost to the association or the bee-keeping fraternity. I hope that during the coming year there will be more added to this gathering sweetness, so that in the near future the songs sung at our conventions, both amusing and ennobling, may be such as are just fitted for the occasion, and enjoyable also in the family circle.

Upon the frst mention of a World's Fair and Exposition to be held in the United States, in 1892, it occurred to me, as it doubtless did to many of you, that as bee-keepers we should prepare for and make the grandest exhibit of the products of, and appliances used in, the apiary that was ever made anywhere. Canada's bee-keepers did themselves honor, and it was a credit to their good sense and energy, to make the grand exhibit they did at the Colonial Exposition in England, in 1886; but the bee-keepers of the United States ought to beat them so badly that they will be anxious for another opportunity to "show off."

In a letter received a week ago to-day, from a successful bee-keeper of New York, he says: "We ought to have a 'lay out' at the Exposition that will astonish the world." With this idea in view, and knowing that it is well to begin to move in fair and exposition matters in good time, I wrote to the mangers of the enterprise in regard to the desirability of having such an exhibit, and received gratifying responses. The United States Government's Apiarian Exhibit at Paris last summer was not much of a success, and could not be expected to be when it is known that bee-keepers had nothing to do with it, except to sell to its representatives, Prof. McLain and others, such things as they wished to put on exhibition. Is it not sincerely to be desired that the coming opportunity to make a display of the magnitude of our industry be improved to its fullest extent?

The changes that I would suggest to be made in the Constitution and By-Laws of the association are given on page 214 of the AMERICAN BEE JOURNAL for this year—a copy of which I have with me, so I will not take time here to mention them, but will mention them at the proper time. Is it not desirable that some plan be devised by which the Bee-Keepers' Union, the Honey Producers' Exchange and this association shall be combined?

The Union, under its efficient management, has accomplished much for our fraternity, and as "In union there is strength," ought not something to be done to make the Union stronger? Under the able leadership of its Manager, assisted by the Board of Directors, it has carried to a successful termination six cases in which bee-keepers have been brought before the Courts on account of damages claimed to have been done by their bees, and settled scores of disputes looking to lawsuits. I believe one case is still in Court, and funds are very much needed to carry it to a termiuation favorable to the cause of justice. "Money talks," and out loud, too.

The Supreme (supremely ridiculous) Court of New York has made itself the object of ridicule by its recent decision in such a case, and it is hoped and expected that when the case comes before the Court of Appeals, the utterances of the Lower Court will be so thoroughly "snowed under" that no summer's sun will ever be able to reach them. Is it not the height of folly for any one who has an apiary, or even keeps a few colonies, to ignore the fact that there is a constant danger of their being the next victim of "miss-placed confidence," and perhaps have on hand a fair-sized suit for damages, etc? Should not each give a helping hand towards furnishing the needed funds with which to defend the right, for it is *principles*, not men, that are being defended? But few Canadians belong to the Union, and not having an organization of this kind, would it not be well for them to give it their hearty support?

Up to the present time this Associaton, and so far as I know, all other bee-keepers' associations, have been accustomed to allow any one present to take part in and enjoy to the full, all benefits arising from asking questions and discussing subjects under consideration, whether members of the association or not. To me this course seems open to serious objections. At our homes, when those not members of our family come to see us, we show them the utmost consideration, and provide for them the very best we have, and wish them to occupy the best and most luxurious seats we possess, if it be nothing better than a hard-bottom chair. Would it not be to our credit as an association, to provide equally well for our bee-keeping visitors, by furnishing them with reserved seats, and hope that, like the visitors at our homes, they will not "wear their welcome out?"

To those who are at an expense of from ten to one hundred dollars, or even more, besides several days of valuable time, for the sake of reaping benefits that come from association and contact with kindred minds, should be granted the privilege of occupying the floor and doing the pleasant, satisfying and solid work of the convention. A fit name for such people as object to becoming members by the payment of the small fee, and yet wish to reap its benefits, I first heard used by the staid editor of the *Review*, and those of you who are so fortunate as to have the pleasure of his acquaintace, can readily imagine how his lips appeared when he called them "absorbers." Appropriate name! Grand title! To such visitors as are not, and do not expect to become bee-keepers, we extend a most cordial welome at all times, aud shall be glad to have such occupy seats at our table, and participate in and enjoy onr social chat.

Since writing the above, the *Review* for November has come to hand, and on this subject, among other things in regard to this matter, Dr. Miller says: "Here is one man coming hundreds of miles at the expense of $50 or $100, who promptly pays his membership fee with no feeling that there is any hardship about it, and right by his side sits a man who lives hard by; sits

through a part of all the sessions, imbibing all he can (why didn't the Doctor say absorbing) that is to be learned, but is suddenly struck with paralysis, when those present are asked to walk up and pay their dollars. If anything is said to him he may reply: 'I just dropped in awhile to see what is going on; I don't know that I can be here after this session, so it's hardly worth while to become a member'."

Since the last meeting of the Association the sleepless destroyer, Death, has invaded the ranks of our fraternity, and quietly and noiselessly removed many loved ones, adding their names to the long list of those who have passed from this sphere of labor, and enjoyment, as well as disappointment, to try the realities of "the beyond." Many of these were to us unknown, but, without doubt, you will all remember the name of Mrs. Mahala B. Chaddock, whom we expected to have met here, and who so recently passed away, while, we may almost say, the ink from the pen that wrote for our entertainment was scarcely dry. The last verse of a poem written by her for the Nov. number of the *Illustrated Home Journal* seems now to have been written for herself. She says:

I am swinging in my hammock old,
And I look away to the hills of gold,
Where the reaper binds with ruthless hold,
And gathers the golden sheaves.
'Tis meet that ripened grain should fall,
And the Heavenly Father watches all;
But o'er our lives there hangs a pall—
She sleeps 'neath the whispering leaves.

E. C. Jordan, of Virginia, who has frequently contributed to our bee-literature, has passed away, and none of us knows who will be the next.

It has been truthfully said that in the course of human events we all have our joys and our sorrows, which are deep and abiding. It becomes us then to accept these joys, and, as best we may, modify our griefs by a more thorough devotion to the duties before us, ever thankful to the Great Power which controls all for the manifold blessings received.

Mr. John Little, of this Province, Ont., in an after-dinner speech at a meeting of the American Horticultural Society, said that he put horticulture and religion together, and was sorry he had not commenced earlier in life.

We can substitute bee-keeping for horticulture, or what would be better still, add it to the others, for horticulture, bee-culture and religion make a trio that go well hand in hand, and if any of us are laggards in either respect, let us rectify the mistake at the earliest possible moment, for,

This life to toil is given,
And he improves it best,
Who seeks by patient labor
To enter into rest;
Then pilgrim, worn and weary,
Press on, the goal is high;
The prize is straight before thee—
There's resting by and by.

In closing, I wish to tender this association my profound and sincere thanks for the confidence reposed in me, as shown by your having twice chosen me as your presiding officer.

I accepted this evidence of your esteem, with an earnest desire to discharge the duties of the office acceptably, but with no idea of doing it as acceptably as have the ably, illustrious, scholarly, eloquent and noted men who have preceded me; but I shall ever remember with gratitude this unexpected evidence of your esteem.

With the most earnest and sincere desire for the success and happiness of you all in your chosen vocations, as the years go by, I wish you all God-speed.

A. B. Mason.

The address of the President was referred to a business committee as follows: Prof. A. J. Cook, Chairman; E. R. Root, F. H. Macpherson, M. Emigh, Wm. Couse, J. R. Howell, Wm. Hislop.

After the reading of the President's address, the meeting adjourned until 8:30 a.m.

SECOND DAY.

MORNING SESSION.

President Mason called the meeting to order at 8:30 a.m., and the convention listened to the reading of an essay written by Miss H. F. Buller, of Campbellford, Ont., on

Bee-Keeping as an Occupation for Women.

The question may be, and no doubt often has been asked, "Is bee-keeping a suitable or desirable occupation for women?" and after having given it a pretty fair trial for the last eight years, I am of the opinion that there is no reason why any woman of moderate strength and intelligence, should not be able to take charge of an apiary of from 30 to 50 colonies, with very little assistance, and derive both pleasure and profit from the employment; at the same time, I doubt whether there are many who would succeed very well in carrying on the business alone, though of course there are a few who would.

In reading the numerous bee-papers that are published now-a-days, one frequently meets with articles on the subject of, whether it is best to make a specialty of bee-keeping, or combine it with some other occupation. Now I do not believe that the farmer can carry on both farming and bee-keeping successfully himself, but if he has either daughters or sons, who will make a specialty of this department, bee-keeping, it may very advantageously be combined with farming; and I do not know of any reason why girls might not make as great a success of the business, as boys.

The wife is supposed to have her hands quite full enough with household work, and, I may say, her head, too, and for any one, either boy or girl, man or woman, to do any good with bees, they must give them their individual attention, and be really interested, and enthusiastic over their work.

"Eternal vigilance is the price of success" in any business, and in none more than in bee-keeping. It is not only labor, but a science, and will make constant demands, not only on the patience, but on the bodily strength and intelligence of those who engage in it; at the same time there is a fascination about the business which relieves it of all tediousness. A woman will think of her bees, study about them, and become so interested as to be almost paid for her work by the love of it.

I believe it would be well worth while for any one who has not been in the way of having the management of an apiary, to spend one season with a skillful bee-keeper before embarking in the business on his own account, as he would then find out not only the best methods of working, but also whether the kind of work suited him. However, even with this preparation, all will not succeed, for I know a lady who took this course, and afterwards failed entirely when she was working for herself; while others, who have only learned what they could from books and papers, besides the suggestions and instructions given them by more experienced bee-keeping friends, have done very well.

In conclusion, I may say that a great deal of the work in the apiary is quite as well adapted for women as for men, and also in the care of the honey, and in preparing it for market.

Where they are most likely to feel their deficiency, is in the lack of skill to do the various carpentering jobs that seem to be inseparably connected with bee-keeping. I imagine that it is the exception, rather than the rule, to find a woman who knows how to handle carpenter's tools, though even this they may acquire enough of to answer the purpose, where there is a necessity for doing so.

Henrietta F. Buller.

Miss Buller's essay was then discussed as follows:

Prof. A. J. Cook—The key to the situation is just this: Give the children some bees of their *own*. Do not give them the bees and then take the honey and sell it, and pocket the money.

R. L. Taylor—Bee-keeping is as good as anything to furnish ladies a healthful, out-door occupation; but the question is, whether it is the best thing for them as a *business*. For some ladies it is all right. Some women can lift a barrel of flour; I have seen them do it. Some *men* are not strong enough, physically, to make a business of bee-keeping. We must look at this as a *business*. All kinds of business *can* be carried on with but little demand for physical strength—sections *can* be put on and taken off one at a time—but the question is, does it pay?

O. L. Hershiser mentioned that two girls had done most of the required work with his bees the past season, and, as their part of the proceeds, they now had $75.00 in the bank.

R. McKnight thought that perhaps 75 per cent. of women would succeed as well as men at keeping bees.

Wm. Sawyer said that a woman was not capable of managing a *large* apiary.

Geo. H. Ashby—Some of you speak about the healthfulness of bee-keeping, and that it is on this account that ladies take up the pursuit. Now, I would like to have you show me the woman that thinks that bee-keeping is healthful, unless she also finds it *profitable*.

C. P. Dadant—There is much connected with bee-keeping that ladies cannot do, but they can have it done.

R. McKnight, of Owen Sound, Ont., followed with an essay on

Cellar vs. Out-Door Wintering of Bees.

I have been assigned the duty of saying a few words on the subject of wintering bees, with the view, I suppose, of opening up a discussion on this important matter.

Safe wintering is of prime importance to success in bee-keeping, in high latitudes, hence the best method of accomplishing this cannot secure too much attention, for upon it depends, in a large measure, the result of the season's work.

I am not expected to treat the subject exhaustively—this is clear, from the fact that I am limited to eight minutes in discussing it.

Successful wintering, either in-doors or out, depends not so much upon where bees spend their quietude and repose, as how

they are treated during the time of their activity.

Preparation for winter should begin when the first notes of our sylvan songsters fall upon the ear, as they return from their temporary stay in the Sunny South—

"When through the neighboring fields the sower strides,
With measured tread, and liberal throws the grain
Into the faithful bosom of the ground."

It should continue while the floral world fills the air with its balmy odors, and nectar is being distilled in plenty. It should go on

"While the mower, sinking, heaps o'er him
The humid hay, with flowers perfumed;"

and only cease when on the last mellow autumn day

"The insects swarm from their dark nooks
To sport through one day of existence more."

It is only then that the bee-keeper's work of preparation should cease, and that of "gathering in one group his pets" be entered upon, that in peace and safety they may pass the time when

"The sky saddens with the gathering clouds,
And through the hushed air the whitening storm deepens."

If only proper treatment be accorded bees throughout the successive stages of their active life, it is not a matter of vital importance whether they spend their season of repose in the cellar, or out-of-doors, provided that they be properly protected.

Preparation is not my theme, however. My text has been furnished me, and I must stick to it—"Cellar vs. Out-Door Wintering of Bees." "That's the question." As it stands, I suppose I am expected to put in a strong plea for the cellar, but I am somewhat at a loss to know just what "cellar" means in my text. Usually it is an elastic term that may mean anything from a damp and dismal hole in the ground, to a well-built, well-ventilated, and well-appointed apartment.

If I am to understand "cellar" to mean the underground room of a dwelling-house, well-built and well-ventilated, then it will be a safe enough place in which to winter bees. However safe it may be, if this be the cellar of my text, I must at once declare myself in favor of the out-door system, for I am entirely opposed to the use of the house-cellar as a winter storing-place for bees, to any great extent.

I am opposed to it, not on the bees' account, but on sanitary principles. When a cellar is so used, it cannot be other than disagreeable to those that live over it. The exhalations thrown off by the bees, floating up, as it will, and diffusing itself through the atmosphere of the rooms above, must be the reverse of agreeable to people who inhale it. It may be worse than disagreeable—it may be positively injurious to health. I incline to the belief that it is so.

If there be such a disease as "bee-asthma," and if it is so contracted by inhaling the odors arising from an open hive in the open air, how much more likely is it to manifest itself when its inhalation continues for months at a time. For these reasons, I cannot advocate cellar-wintering in the literal sense of the phrase.

An underground, or partially underground, structure is, however, in my judgment, the best wintering place—best because most convenient and economic, both of which are important considerations. Speaking as I do from years of experience in various plans of wintering bees, carried on simultaneously, I know whereof I affirm.

During these years I have had two bee-yards—some years three. At home I winter my bees in a bee-house. At the out-apiaries I pack them on the summer stands, or in clamps, and my experience convinces me that the in-door plan has the advantage of the out-door one, in these two important matters—convenience and economy.

The convenience consists in the ease and rapidity with which the hives may be put in and taken out; the economy consists in conserving heat and saving honey.

I shall not enter into the consideration of which is the safer, for I believe safety may be insured by either plan; but content myself with showing that convenience and economy both range themselves on the side of indoor wintering.

Admitting one has on hand the cases and clamps of former years, the work of packing for winter outside is still a labor of some magnitude. The cases must be placed in position, the hives moved into them, sawdust or other suitable material procured; and the packing done. All this consumes time, and recurs with every returning winter. Compare this work with the simple labor of transferring from the yard to the bee-house, and it is a mere bagatelle.

The economy of the indoor, as compared with the out-door method, must be apparent to every one who has given the matter any thought at all. In the former, the heat generated by the bees when together, may be employed in maintaining a uniform and suitable temperature, resulting in a continued state of quiescence and comfort, which state reduces the consumption of stores to a minimum.

My own experience goes to show that one-half the amount of honey per hive will serve to winter in the house, required to bring them through outside. This saving is of great importance to the bee-keeper in more respects than one. It often enables him to winter his bees without fall feeding, when otherwise it would be necessary for him to do so. If the stores be ample, it is no less advantageous, for it saves honey, which means money.

Let us take, for example, a bee-keeper who has 200 colonies. Five months will be the average time of confinement in winter quarters. Say it requires 1½ pounds per colony per month inside, and 3 pounds outside; there will be a saving of nearly 8 pounds of honey per colony in favor of the bee-house, or 1,600 pounds for 200 colonies; 1,600 pounds at 9 cents per pound, is $144.

But it may be urged that the extra cost of the building will more than counterbalance the saving in honey. This I am not prepared to admit. Three hundred dollars, at most, will serve to construct a bee-house, where labor and lumber are not excessively high. The expenditure once incurred, no further outlay will be necessary for a lifetime; while the building may be made to serve the purpose of a first-class extracting room, or a store-house in summer.

On the other hand, no satisfactory plan of out-door wintering can be adopted without considerable outlay in labor and money. If the single-clamp plan be practiced (and I hold this to be the best plan of out-door wintering), it will require 50 feet of lumber, at least, for each outer case, or 10,000 feet for 200 colonies. This, at $9.00 per thousand feet, represents $90.00; for labor and nails, say 15 cents per colony, $30.00; sawdust or other packing material, 5 cents each, $10.00—or $130.00 in all. This will cover half the cost of a permanent structure, in every way preferable. To this we must add twice the consumption of honey annually.

It is easy, therefore, to determine which plan in the long run is most economical, to the man who keeps from 100 to 200 colonies; and it is to such that my remarks more immediately apply.

Bee-keepers having a less working-force, should regulate their practice by the circumstances in which they find themselves.

R. McKNIGHT.

The following discussion of Mr. McKnight's essay then took place:

Prof. Cook—Have you found cellar-wintering of bees equally safe with out-door wintering?

Mr. McKnight—So far as my experience has gone, the greater safety has been with the in-door plan.

Dr. A. E. Harvey—If the dead bees are kept properly cleaned up, and the cellar ventilated, there will be no danger to health, by having bees under the living-rooms.

J. Sturgeon had 200 colonies, and out-door wintering had been the most successful with him. Locality, the hive, and food, made all the difference in wintering, in his opinion. He used chaff hives, and had high board wind-breaks. Late disturbance is an injury. Possibly he did not understand the plan of in-door wintering.

R. L. Taylor—At what temperature did you keep the cellar?

J. Sturgeon—40° to 45°, as nearly as possible.

R. L. Taylor—Well, *how* near?

J. Sturgeon—Well, within 10° to 15°.

Rev. W. F. Clarke preferred out-door wintering, but wished to have the hives raised a foot from the earth. Whether in-doors or out-doors, *hibernation* is what is needed.

R. L. Taylor—How are we to make them hibernate?

W. F. Clarke—It is mainly a matter of temperature, but not wholly. We cannot always induce this condition.

Geo. H. Ashby—One trouble is, that experiments are not decisive. One man puts all his bees into the cellar; another leaves them all out. Part of mine are left out, and part put into the cellar. Those in-doors consumed 9½ pounds per colony, in 5 months; those out-doors consumed 13 pounds. Those wintered in the cellar swarmed earlier, and stored the most surplus. The trouble with cellar-wintering is, that the bees are put out too early in the spring. Hives last longer when they are in the cellar during the winter.

S. Corneil—In weighing colonies, did you take into consideration the weight of the brood?

Geo. H. Ashby—There is so little brood, that it is of no account.

S. Corneil—The object of putting bees into a cellar, is to aid them in keeping up the proper temperature inside the hive. If they are properly protected, the out-door plan is equally as good.

E. R. Root—In our locality (Medina, Ohio), the consumption of stores is about 13 to 15 pounds per colony in out-door wintering. We have wintered but few bees in the cellar, but we have put in about 40 colonies this winter, and were surprised to see with how little labor they were put into the cellar.

Prof. Cook—We need have no fears of ill-health from having bees in the cellar, if the cellar is ventilated as all cellars ought to be. I think that sub-earth ventilation is not needed, unless it be used to control the temperature. I know of many who have wintered hundreds of colonies with no sub-earth ventilation.

S. Corneil—The only advantage of sub-earth ventilation, is that it may be used in tempering the air by bringing it in under the earth. I venture to say that I can winter bees in a temperature of 25 , by having the walls of the hive thick.

J. B. Hall—Where is the man who winters his bees out-of-doors? You all talk about out-door wintering, but when it comes right down to it, if you do not put your bees into a cellar, you build a little cellar around each colony. Why not put them all into one big cellar?

R. L. Taylor—It has been urged that bees should not be taken out of the cellar too early. My experience is, that it is better to take them out early. If they have wintered well, there is no danger of spring dwindling.

The convention then adjourned until 1:30 p.m.

AFTERNOON SESSION.

President Mason called the meeting to order at 1:30 p.m., and the convention then proceeded to select the place for holding the next meeting. Keokuk, Iowa, was chosen, and the election of officers was then held, which resulted as follows:

President—R. L. Taylor, Lapeer, Mich.
First Vice Pres.—Eugene Secor, Forest City, Iowa.
Secretary—C. P. Dadant, Hamilton, Ills.
Treasurer—Dr. C. C. Miller, Marengo, Ills.

The other Vice-Presidents are to be chosen by the executive committee.

REPORT OF COMMITTEE ON RESOLUTIONS.

The report of the Committee on Resolutions was read and adopted. It is as follows:

Resolved, That the cordial thanks of this Association are due, and are hereby tendered to the Brant Bee-Keepers' Association, for its kind invitation (extended at its last session) to meet at Brantford, and for the generous and efficient manner in which it has received and entertained this convention.

Resolved, That our thanks are also tendered to the Mayor and City Council of Brantford, who have so kindly carried out the evident wish of the city, in granting us the free use of this hall, and in giving us a generous welcome.

Resolved, That the thanks of this Association are due, and hereby extended to such bee-periodicals as have given us the gratuitous use of their columns for notices of meetings, and in other ways given their assistance to make this meeting a success. And to the city and other papers who have kindly published our proceedings, and for the correct manner in which they have reported our meetings.

Resolved, That the thanks of this Association are due and hereby tendered to the quartette who so kindly assisted in enlivening our session by the singing of our bee-keepers' songs.

Resolved, That the thanks of our Association are due and hereby tendered to the hotels and railroads for reduced rates and accommodations.

Resolved, That having been informed by a communication from ex-President Thomas G. Newman (read by the President), of the severe illness of his wife, and of his regret at not being able to be with us in this convention, we hereby tender him our most cordial sympathy, and express our sincere regrets that he is not permitted to be with us.

To the Rev. L. L. Langstroth, the acknowledged father of modern apiculture, who is with us in thought but absent on account of failing health, we send most cordial greeting, and wish him a restoration to health and strength, and express our regrets that he is not here to cheer us by his presence, and enlighten us by his counsel and wisdom.

To S. T. Pettit, of Belmont, Ont., and E. D. Keeney, of Arcade, N. Y., who send regrets for their inability to be with us on account of ill health.

To J. V. Detwiler, of New Smyrna, Fla., who came so far as Toledo, O., and was prevented from attending this convention because of the death of his father, we also send words of cheer and our regrets at their enforced absence. R. F. HOLTERMANN, } *Com.*
R. L. TAYLOR. }

The following telegram was sent to Father Langstoth: "The International bee-keepers send affectionate greeting, and wish you were here."

Next came an essay from S. Corneil, of Lindsay, Ont., upon

Heat-Retaining Hive—How it is Best Obtained.

Regarding the protection of bees against cold in winter, and during the time of rapid brood-rearing in spring, I take the ground that warm air inside the hive is of the first importance, and that the temperature of the air outside the hive is only a secondary matter, provided the hive walls are composed of good heat-retaining materials. In a hive of bees we have, as it were, a self-acting furnace, keeping up a constant temperature of 65 degrees in the centre, and at least 50 degrees in the atmosphere immediately surrounding it, when the bees are the most quiescent.

As with live stock during our winters, so with bees, the better the heat is retained in the air in contact with them, the less food they consume, and the less vital work is required to keep up the standard temperature. That much of the heat generated may be retained by the selection of the best materials for the hive, is evident from the following account given by Prof. Pepper, in his work on "Heat:"

"One of the most interestiug novelties displayed in the department devoted to Norway, in the French Exhibition of 1867, was the self-acting Norwegian cooking-apparatus, constructed in the most simple manner, of a wooden box lined with four inches of felt, in which the sauce-pans containing the food, previously boiled and maintained at the boiling-point for five or ten minutes, according to the nature of the food to be cooked, are placed. The heated sauce-pans are covered with a thick felt cover, and, the lid of the box being fastened down, the rest of the cooking is done by slow digestion, no more heat being added.

"The heated vessels containing the food will retain a high temperatnre for several hours, so that a dinner put into the apparatus at 8 in the morning, would be quite hot and ready by 5 in the afternoon, and would keep hot up to 10 or 12 at night, because the felt clothing so completely prevents the escape of the heat; and as the whole is enclosed in a box, there are no currents of air to carry off any other heat by convection.

"The principle on which this cooking-apparatus acts, is that of retaining the heat; and it consists of a heat-retainer or isolating apparatus, shaped something like a refrigerator, and one or more sauce-pans to fit into it."

In selecting the materials for hives, with a view to the greatest warmth, it should be remembered that air conducts nearly twice as much heat as cork, the ratio being as 49 to 29. Carded wool and wool-felt conduct about four times as much as cork. Blotting-paper conducts about as much as wool. Sawdust conducts about seven times as much as cork. Wood generally conducts seventeen times as much heat as cork, "more than four times as much as wool, and more than ten times as much as air."

Cheshire says, "If a hive side of ⅝-inch zinc have its protective power represented by 1, that of a double side with dead (!) air space would equal 4, while the same wooden sides packed tightly with chaff would equal 10." "Further experiments proved that the cork-dust in lieu of the chaff-packing, gave a non-conductivity to be represented by 14."

My own experiments have satisfied me that straw is a much better heat-retaining material than wood. Each straw has a dead-air chamber between the joints, and and when the straws are pressed together, the air lying between them is comparatively "dead."

I made some experimeuts last winter with an old-style Jones' hive made of straw, and a single-walled eight-framed Langstroth hive. I found that the same quantity of hot water cooled much more quickly in the Langstroth. For covering hives on top, there is nothing available as good as quilts filled with sheep's wool. There is a kind of batting used by upholsterers which I think would answer nearly as well. It is made of old woolen rags, and costs, at wholesale, less than half the price of wool.

Cork-dust at wholesale costs about five or six cents per pound. A cubic foot well packed weighs about eight pounds. About three pounds will be required to give 1¼ inches of filling for the walls of ordinary hives. I use picture-backing and three thicknesses of carpet felt-paper for the inner skin of my hives, and ⅞-inch pine for the outer skin. Hives with walls thus filled will measure about 2½ inches larger each way. They will weigh abont five or six pounds more, and will cost about as much more as single-walled hives of the same capacity.

The question which every bee-keeper will ask before incurring the extra expense is, Will it pay to use these double-walled hives? I think it will be admitted that their advantages for early spring brood-rearing are as great as for wintering; but leaving the former out of the question, if, during the time one of these hives lasts, it should be the means of saving in good condition a colony of bees, which in a single-walled hive would have died, it will pay to use hives with packed walls.

S. CORNEIL.

Mr. Sturgeon used and preferred the chaff hive.

J. B. Hall—Yes, but there are really a lot of little cellars, with a tube from each, through which the bees may fly. Mine are in one large cellar, with no tube for them to fly out.

Mr. Sturgeon—Yes, but I have tried putting bees in a cellar in chaff hives.

J. B. Hall—Yes, yes; but you protected them *too* much. When I go into a warm room, I take off my overcoat.

J. B. Aches—Does Mr. Sturgeon give upward ventilation to his hives in the cellar?

Mr. Sturgeon—No, sir.

S. Corneil—A covering of enameled cloth amounts to nothing, in the way of retaining heat. Such covers must be covered with some non-conductor of heat.

Geo. H. Ashby said it made no difference if the cellar were damp, if the temperature were high enough.

R. L. Taylor had several times tried wintering bees out-of-doors, and they had never wintered so well as in a cellar. He had bees in two cellars. One cellar is made under his house. There is a furnace in it, and the cellar is dry. The other is under the barn, and has a cistern in it, and is damp. He could see no difference in the wintering of the bees in the two cellars. There is just this much about it: In a damp cellar, the temperature must be kept higher.

Adjourned to meet at 7:30 p.m.

EVENING SESSION.

The meeting was called to order at 7:30, with President Mason in the chair. This session was opened very pleasantly by the singing of the several bee-keepers' songs. The last one sung was the one that appears on page 772 of the AMERICAN BEE JOURNAL. This was new, and "brought down the house." It did us good to see the staid and sober President Mason, so far forget himself as to slap his knees, tip back his head and shake his sides with laughter.

Should Bee-Keeping be Combined with some other Business?

R. L. Taylor—No. We find life none too long to perfect one occupation. If there is added to this regular money-making occupation, some other money-making occupation, there can never be so great a success. I think I can make more money by choosing some one business, and putting my whole soul and life into it. But my nature rebels at such a course; there are some other things that I like to do as well as bee-keeping; so I have sacrificed my love of money for the pleasure of having more than one pursuit. In the summer the bees require close attention, and any pursuit to combine with bee-keeping, must be one that will require but little attention at that time. Small-fruit growing, that has been so often mentioned, is a very poor one. In many places, grape-growing, or the raising of pears or plums would work well with bee-keeping. But the question always comes back to me: "If bee-keeping is so profitable, why not keep more bees? Or, if it is not profitable, why follow it at all?" If a man does his work in the winter as he ought to, he can care for 300 colonies of bees.

Mr. F. H. Macpherson, of Beeton, Ont., then read the following essay:

Shipping Queens.

The most that I can say on this subject will probably not be new to the majority of you, but as I shall detail the system practiced in our own apiary, there may be some points which may interest even the older heads who have perhaps had a great deal more experience than myself.

I take it that the point in the queen-breeder's work—where my subject shall properly commence—is when he has his queens mated and ready to forward in fulfilment of the various orders received or expected.

The three principal items for consideration are: 1. The cage. 2. The food. 3. The mode of caging. I shall discuss these in the order in which I have named them, as it appears to be their natural sequence.

THE CAGE.—It requires to be light, strong and free from absorbent qualities. We have made them from pine, cedar, balsam, spruce and basswood, and like them in the order named. Pine seems to conform to all the requirements named, better than any of the others; cedar is light, but not so strong; balsam is light, soft, not liable to split, and a good non-absorbent, but with us it is not easily obtainable; basswood is strong and less liable to split, but it has the disadvantage of absorbing moisture, and will soon become sour, unless kept in a dry atmosphere; spruce is light, but it is usually hard and flinty, and is very liable to crack.

The shape of the cage has not so much to do with successful shipping, as has the ventilation; and I am of the opinion that a good many queens are lost through *over*-ventilation. It is surprising to notice how little air will suffice.

Another fruitful source of loss is from the sudden change of temperature when in the mails. This may, to a great extent, be overcome by wrapping the cage in a single thickness of ordinary manilla-paper.

The immediate requirements of every cage are—a sufficient space in which to place the queen and the attendants, and another space in which to put the food, so connected with the first that the queen and her retinue may get at it as they require, and yet not become fastened in it, or daubed by it.

THE FOOD.—This is probably the most important item connected with the whole business of shipping queens—the "weal or woe" of more queens depends upon this than upon all other things combined. There are, perhaps, as many different kinds of foods made and recommended as there are different methods of curing bee-stings, but, as in the latter case, what proves of service to one is of no account with another.

We have tried many different mixtures with varying results. The "Good" candy seems to be generally recognized as having merit, and our success with it has been fair. We have also obtained uniformly good results from the use of a food made after the following formula:

Take absolutely-pure granulated sugar and pulverize it. Put it in a granite dish and pour over it enough pure honey (first having heated the honey to a little below the boiling-point), to thoroughly saturate it, and stir the mass until the sugar and honey are well mixed. Then place the vessel in hot water, in which it should be allowed to stand (keeping the water about the boiling-point) until the sugar and honey become thoroughly incorporated. When cool it will be found quite waxy. It will not melt and run easily, and the bees take it very kindly.

During the past season we have sent out many hundreds of virgin queens, and the work of preparing the food as given above, was more than we cared to undertake for such a large number. We also desired a less costly food. We received in the spring, from Mr. W. P. Henderson, of Tennessee, a half-dozen young queens which reached us in a fine, healthy condition, and which appeared to be fed on pure honey, and we felt that Mr. H. was practicing the plan we wanted.

We ascertained from him that he used short-staple raw cotton, just from the gin, after being separated from the seed, which he saturated with the ripest and thickest honey that he could get, and which he then placed tightly in the trough of the cage, to keep it from leaking and bedaubing the bees.

One pound of the raw cotton holds sufficient boney for a thousand cages, at a cost of ten cents for the cotton. During the season we shipped nearly all our queens on food prepared in this way, and we found that in the majority of instances they reached their destination in splendid condition.

I wish to particularly emphasize the idea that nothing but the purest of sugar should be used—adulterations of this article have cost us the lives of a good many queens.

MODE OF CAGING.—Complaints are sometimes heard, of queens which do not lay on introduction after arrival at their destination, even though they may have been good layers before being shipped. The treatment of queens before shipment, and the mode of handling when caging, has a good deal to do with this trouble. If a queen be taken out of the hive when she is actively engaged in egg-laying, there is considerable danger of injury, through close confinement and through the jarring and shaking which she will receive in the transportation by mail, and we have known such queens to cease laying almost entirely after a long journey. The remedy for this is, to allow them to rest a day or two before shipment.

We have seen students, in catching queens, take hold of them by the abdomen or the head. This is detrimental in many cases to the egg-laying qualities of the queen, especially if any pressure is exerted. She should always be caught by the wings, and held only as short a time as possible.

They should be handled very carefully and gently, so that they may not become excited, and on being taken from the hive, they should at once be transferred to a dark spot as near the temperature of the inside of the hive as possible. If allowed to remain in the hot sun, they receive what we might call a sort of sunstroke, and their egg-laying qualities seem to be impaired.

We generally ship queens by a mail, which leaves late in the day, and, if possible, we always like to have the queens caged, and placed in a dark room for two or three hours before they are sent off. They are thus less excited, and stand the journey better. F. H. MACPHERSON.

E. R. Root showed and described the Benton shipping-cage. One trouble, he said, with the Peet cage, is that the space is too large, and one side is of tin. This allows the bees to slip about too much. They had been using the Benton cage, with the best of success, the past season. After much experience, they had found 20 bees were about the right number to put in the cage. They had arranged the Benton cage so that it might also be used as an introducing-cage. He had watched the matter closely, but had seen no proof that queens are injured by shipping immediately after caging.

Adjourned to meet at 8:30 a.m.

AMERICAN BEE JOURNAL
ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

☞ Read our Book Premium offer on the last page of this JOURNAL.

☞ Money in Potatoes, by Mr. Joseph Greiner. Price, 25 cents, postpaid. For sale at this office.

☞ Send us one **NEW** subscriber, with $1.00, and we will present you with a nice Pocket Dictionary.

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☞ Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul brood, can be procured at this office at 25 cents per ounce, by express.

☞ The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to advance that date another year.

☞ Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

☞ We have some full sets of the BEE JOURNAL for 1889, and *new* subscribers can have the full sets for 1889 and 1890 for $1.80 until all are gone. Or, we will send the full sets for 1887, 1888, 1889 and 1890 for $3.00.

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What are they? There is a new departure in the treatment of disease. It consists in the collection of the specifics used by noted specialists of Europe and America, and bringing them within the reach of all. For instance, the treatment pursued by special physicians who treat indigestion, stomach and liver troubles only, was obtained and prepared. The treatment of other physicians, celebrated for curing catarrh, was procured, and so on till these incomparable cures now include disease of the lungs, kidneys, female weakness, rheumatism and nervous debility.

This new method of "one remedy for one disease" must appeal to the common-sense of all sufferers, many of whom have experienced the ill effects, and thoroughly realize the absurdity of the claims of Patent Medicines which are guaranteed to cure every ill out of a single bottle, and the use of which, as statistics prove, *has ruined more stomachs than alcohol.* A circular describing these new remedies is sent free on receipt of stamp to pay postage, by Hospital Remedy Company, Toronto, Canada, sole proprietors.

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A Magazine of the choice literary character which the ILLUSTRATED HOME JOURNAL sustains, will add many pleasures to any "family circle." Its beautiful illustrations and interesting reading-matter will make it heartily welcomed at every "fireside" in the land.

We desire that every one of our readers should secure its regular visits during the year 1890, and in order to induce them to do so, we will make this tempting offer:

We will Club the AMERICAN BEE JOURNAL and the ILLUSTRATED HOME JOURNAL, and mail both periodicals during the whole year 1890 for **$1.50**, if the order is received at this office before January 1, 1890.

Such a *remarkably low* club rate as the above, should induce every reader of the BEE JOURNAL to accept it without a moment's delay.

As a further inducement, we will mail the superb number for December, 1889, *free* to those who send their subscriptions early; that is, until all the December numbers now on hand are taken.

New subscribers to the above club will have the December numbers of both of the JOURNALS free—as long as the stock lasts. So the sooner they subscribe, the more they will get for their money.

☞ Some have requested us to print a card on a less number than 100 Honey Almanacs, and we have concluded to accommodate them. We will furnish 25 copies with card printed on the first page, **postpaid,** for $1.10; 50 copies for $1.70; 75 copies for $2.30. See prices for more on the page 822.

Subscribers who do not receive this paper promptly, will please notify us at once.

Honey and Beeswax Market.

DETROIT.

HONEY.—Demand is fair for comb at 13@15c. per lb. There is more dark honey than light. Extracted, 8@9c.
BEESWAX.—24@25c.
Nov. 11. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—Receipts of comb are averaging about as they usually do with a fair crop. Prices rule at 13@14c. for choice to fancy 1-lbs., which comprise the bulk of the receipts, very little in sections averaging 1½@2 lbs., and sells at 10@12c¼.; dark, 8@10c Extracted, 6@8c.
BEESWAX.—25c. R. A. BURNETT.
Nov. 8. 161 South Water St.

KANSAS CITY.

HONEY.—Fancy white 1-lbs., 14c.; good, 13c.; dark 11c.; white 2-lbs., 13c. Extracted, white, 7c.; dark,6c Demand good.
Nov. 11. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—1-lb. comb, 13@15c. Extracted, 6@7c.
BEESWAX.—20@25c.
Dec. 9. J. M. CLARK COM. CO., 1421 15th St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 14@15c.; 2nd grade white 1-lbs., 13@14c.; old dark 1-lbs., 10c.; new, 10@11c. Extracted, white, in barrels and kegs, 7@8c.; in tins and pails, 8@8½c.; dark, in barrels, 6@6½c.; in kegs, 6@7c. Demand steady.
BEESWAX.—22@23c.
Nov. 11. A. V. BISHOP, 142 W. Watar St.

NEW YORK.

HONEY.—Extracted, white clover, basswood, orange blossom and California, 8c.; buckwheat, 6 cts.; common Southern, 65@70c. per gallon. Demand is good. Comb boney, fancy white 1-lbs., 16c.; 2-lbs., 14c. Fair 1-lbs., 14c.; 2-lbs., 11@12c. Buckwheat, 1-lbs., 11@12c.; 2-lbs., 10@11c. Demand very good for fancy white 1-lbs., and buckwheat 1-lbs.
BEESWAX.—22c.
Oct. 2. F. G. STROHMEYER & CO., 122 Water St.

CHICAGO.

HONEY.—Demand for white clover 1-lbs. is improving, but price depends upon size and style of package, condition and appearance when received, ranging from 12@13½c.; basswood, 11@11½c.; buckwheat, 8@10c. Extracted, 6½@7½c., depending upon style and size of package.
BEESWAX.—27@28c.
Nov. 9. S. T. FISH & CO., 189 S. Water St.

NEW YORK.

HONEY.—Market is inactive, and prices declining. Fancy white 1-lbs. 13@15c., 2-lbs. 12c. Off grade 1-lbs. 11@12c., 2-lbs. 10@11c. Buckwheat 1-lbs., 10@11c.; 2-lbs., 9c. Extracted in good demand. Basswood, 7½c.; California, 7½c.; orange bloom, 8@8½c.; buckwheat 6 cents; Southern, 70@75c. per gallon.
HILDRETH BROS. & SEGELKEN,
Dec. 9. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—It is selling a little slow. Fancy white clover 1-lbs., 16@17c.; fair to good, 15@16c.; 2-lbs., 15@16c.
BEESWAX.—24c.
Dec. 9. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—A large amount of Comb on the mardet at 14@16c for best white. Extracted at 5@8c.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yallow, on arrival.
Nov. 22. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

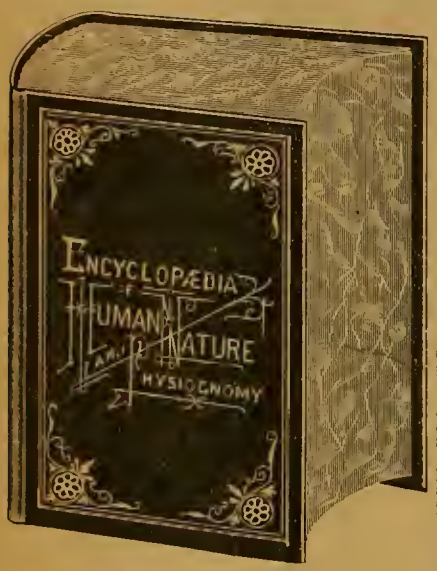
HONEY.—Selling slowly, especially extracted, on account of mild weather. White 1-lbs., 13@14c.; dark 10@12c.; white 2-lbs. 12@13c.; dark. 10@12c. Extracted, white, 7@8c.; dark, 5@6c.
BEESWAX.—22c.
Nov. 22. CLEMONS, CLOON & CO., cor 4th & Walnut.

A New Premium.

The National Purchasing Agency of this city issues a Membership Ticket good for the year 1890, for the sum of one dollar. This Ticket is not transferable, and entitles the holder to all discounts that the Agency can secure on goods that may be ordered, and they are in a position to obtain more or less discount on every order received.

By a special arrangement, we can offer a MEMBERSHIP Ticket for 1890 to any one sending us two new subscribers for the AMERICAN BEE JOURNAL or ILLUSTRATED HOME JOURNAL, for one year, with $2.00.

$5.00 Encyclopedia.—The work is almost as large as Webster's Dictionary, 4 inches thick, weighs over 5 pounds, and occupies over 300 cubic inches of space. It is handsomely bound in English cloth, double spring back, gilt side and back stamp, marble edges, beveled boards, and contains over 100 illustrations. It is published at $5.00 per volume, which is very low in comparison with standard current prices on other works.



It treats of every characteristic, both the good and the bad, of the various types of man and woman, and proposes to tell most people more about their fellow-men than they ever dreamed it possible to find out.

We will club it with either of our JOURNALS for $2.10, postpaid. Or both the BEE JOURNAL, HOME JOURNAL and Encyclopedia for $3.00, all postpaid.

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51D13t

CARNIOLAN QUEENS!

The senior partner of ANDREWS & LOCKHART will give his entire time next season to the breeding of **Carniolan Queens and Bees**, and will sell, after June 1, 1890, Untested Queens at $1.00 each; Tested, $2.00 each; those carried through the winter, at the 15th of May (and are Tested) $2.50 each.

☞ Circulars will be out about Feb. 1, 1890.

JOHN ANDREWS,
51Dtf PATTEN'S MILLS, WASH. Co., N. Y.
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ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

OLDEST BEE-PAPER IN AMERICA

VOL. XXV. CHICAGO, ILLS., DECEMBER 28, 1889. No. 52.

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Topics Presented in This Number.

Alimentary Apparatus of Bees 831
Bottles for Honey..... 831
Candy for Winter Stores..... 827
Color of Honey 827
Combined Super and Shipping-Crate.. 831
Contradicting Reports Injurious to Bee-Keeping 829
Decoy for Securing Swarms..... 829
International Convention at Brantford, Ont 829
Language of Flowers 828
Mailing Bees—Historical Facts..... 828
Peace and Good-Will to Men..... 833
Queen-Bees in Foreign Mails..... 827
Riding Hobby-Horses—Bee-Keeping as a Recreation and Antidote..... 830
Secretary Holtermann's Report..... 833
Sun Wax-Extractor..... 829
Swarming without Drones..... 831
Visit to a Connecticut Apiary 829

Convention Notices.

☞ The next annual meeting of the Ontario Bee-Keepers' Association will be held in Belleville, Ont., in the City Hall, on Jan. 8 and 9, 1890.
W. COUSE, *Sec.*

☞ The Indiana State Bee-Keepers' Association, will hold its tenth annual meeting at Indianapolis, Ind., on Wednesday, Jan. 15, 1890, at 1 p.m. All bee-keepers are cordially invited.
GEO. C. THOMPSON, *Sec.*, Southport, Ind.

☞ The annual meeting of the Colorado State Bee-Keepers' Association, will be held in the Chamber of Commerce building, in Denver, Colo., on the third Monday in January, 1890, for the election of officers and other business. Everybody is invited to attend. E. MILLESON, *Pres.*

☞ The 24th annual meeting of the Michigan State Bee-Keepers' Association, will be held at Lansing, Mich., in the Capitol Building, on Dec. 26 and 27, 1889. At that time nearly all railroads sell half fare tickets; a few railroads charge one-and-one-third fare for the round trip. Reduced hotel rates will be given at the Hudson House. All are cordially invited. H. D. CUTTING, *Sec.*

☞ The 21st annual meeting of the New York State Bee-Keepers' Association will be held in the Court House at Rochester, N. Y., on Feb. 5, 6, and 7, 1890. Reduced rates will be given at hotels and on all principal railroads. The programme and full particulars will appear in due time. Each county association is requested to send two or more delegates. G. H. KNICKERBOCKER, *Sec.*

☞ The annual meeting of the Vermont State Bee-Keepers' Association, will be held at Burlington, Vt., on Jan. 21 and 22, 1890. Excellent hall accommodations have been secured at the VanNess house. The Central Vermont Railroad has granted round-trip tickets from the following places: Rutland, White River Junction, Cambridge Junction, Richford via St. Albans, Ticonderoga, and all intermediate points, to Burlington and return for fare one way. A good meeting is expected, and all are invited. For further information and programmes, apply to the Secretary.
J. H. LARRABEE, Larrabee's Point, Vt.

To Correspondents.

Our Club Rates are: $1.90 for two copies (to the same or different post-offices); and for THREE or more copies, **90 cents** each.

The Bee Journal is sent to subscribers until an explicit order is received by the publishers for its discontinuance, and the payment of all arrearages is made.

Sample Copies of the BEE JOURNAL will be sent FREE upon application. Any one getting up a club, can have Sample Copies sent to those they desire to interview, by sending the names to this office; or we we will send them all to the agent.

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We will take Canadian paper money for subscription or books; and Canadian postage stamps may be sent for fractions of a dollar.

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☞ A few copies of the old edition can be supplied at **$1.25** per copy.

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☞ If 100 or more are ordered, we will print the bee-keeper's card (free) on the cover.

Why Eat Honey? (Leaflet No. 1), by THOMAS G. NEWMAN.—This leaflet is intended for distribution in the bee-keeper's own locality, in order to create a Local Market.—Price, 100 copies, 50 cts.; for 500, $2.00; for 1,000, $3.25.

☞ If 200 or more are ordered at one time, we will print on them the honey-producer's name and address FREE.

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How to Keep Honey, (Leaflet No. 3), by THOMAS G. NEWMAN.—This leaflet is designed to inform producers, dealers and consumers How to Keep Honey, so as to preserve its richness and flavor, and prevent deterioration by being stored in damp and unclean places.—Price, 100 for 50 cts.; 500 for $2.00; 1,000 for $3.25.

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Bee-Pasturage a Necessity, by THOS. G. NEWMAN.—Progressive views, suggesting what and how to plant. It is a chapter from "Bees and Honey."—Price, 10 cts.

Swarming, Dividing and Feeding.—Hints to Beginners, by THOMAS G. NEWMAN. A chapter from "Bees and Honey."—Price, 5 cts.

Bees in Winter, by THOS. G. NEWMAN.—Chaff-Packing, Bee Houses and Cellars. This is a chapter from "Bees and Honey."—Price, 5 cts.

Scientific Queen-Rearing, as Practically Applied, by G. M. DOOLITTLE. The author details the results of his Experiments in the Rearing of Queen-Bees for the past four or five years, and is the first to present his great discoveries to the world. Price, $1.00.

Foul Brood—Its Cause and Cure, by FRANK R. CHESHIRE, of London, England. It describes his experiments with the use of Phenol for the cure of the diseases of Bees. Price, 10 cents.

Honey as Food and Medicine.—This is a French edition of the pamphlet in English bearing the above name, by THOS. G. NEWMAN. It is printed in large type, and contains 20 pages. Price, 5 cents.

Revised Langstroth Book, by CHARLES DADANT & SON; edition of 1889. It is entirely re-written and fully illustrated. Price, **$2.00.**

Convention Reports.—A brief history of the North American Bee-Keepers' Society, with a digest of all its previous Conventions, and full Reports of the Proceedings of the Conventions held at Detroit, Mich., in 1885; at Indianapolis, Indiana, in 1886; at Chicago, Ills., in 1887; and at Columbus, Ohio, in 1888. Price, **50 cents.**

☞ Report of either Convention, **25 cts.**

A B C of Carp-Culture, by MILTON P. PIERCE.—It explains the simplest, cheapest and most effective system of carp-culture, and being written by the Secretary of the American Carp-Cultural Association, it cannot fail to be of inestimable value to all interested in the fascinating avocation of carp-culture. 100 pages. Price, 40 cents.

A B C of Potato-Culture, by T. B. TERRY.—It tells how to grow potatoes in the largest quantity, and of the finest quality, with the least expenditure of time and labor. It is not only valuable to potato-growers, but a great part of it applies to the management of almost any crop on the farm, especially to the preparation of the soil, manures, etc. Price, 40 cents.

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How to Raise Comb Honey, by OLIVER FOSTER.—16 pages. Price, **5 cts.**

Foul Brood, by A. R. KOHNKE.—Origin, development and cure, as taught by the most noted apiarists of Germany. Price, **25 cts.**

Scribner's Lumber and Log Book.—Gives measurements of all kinds of lumber, logs and planks; wages, etc. Price, **35 cts.**

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It tells how to cure boils, burns, chilblains, corns, coughs, cholera, diarrhea, dysentery, diphtheria, dyspepsia, ear-ache, felons, headache, hiccough, hoarseness, itching, pimples, piles, rheumatism, ringworm, sore eyes, sore mouth, sore throat, sunstroke, stings and insect bites, toothache, ulcers, whooping cough, worms, etc. Price, 25 cents.

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A B C of Bee-Culture, by A. I. ROOT.—This is a cyclopædia of everything pertaining to the care of the Honey-bee, and is valuable to the more advanced bee-keeper, as well as to the beginner. It contains facts gleaned from the experience of thousands of bee-keepers, all over America. Price, cloth binding, $1.25; paper, $1.

Success in Bee-Culture, as practiced and advised by JAMES HEDDON.—It contains 128 pages, well printed on good paper, and illustrated. It covers the whole field of practical apiculture, and is intended for specialists and those who keep bees for the profits of the business. Price, 50 cts.

A Year among the Bees, by DR. C. C. MILLER.—This is a Talk about some of the implements, plans and practices of a bee-keeper of 25 years' experience, who has for 8 years made the production of honey his exclusive business. Price, in cloth binding, 75 cents.

The Bee-Keeper's Handy-Book, by HENRY ALLEY.—This book contains 270 pages, and is a complete manual of bee-keeping. It gives his methods of Queen-Rearing practiced for 22 years. Price, bound in cloth, $1.10.

Dzierzon's Rational Bee-Keeping.—A translation of the master-piece of that most celebrated German authority. Price, bound in cloth, $2.00; in paper covers, $1.50.

Blessed Bees, by JOHN ALLEN.—This is a romance of bee-keeping, full of practical information and enthusiasm. Price, 75 cents.

The Production of Comb Honey, by W. Z. HUTCHINSON.—It discusses the use of Comb Foundation—when, where and how to use it, etc. Price, 25 cents.

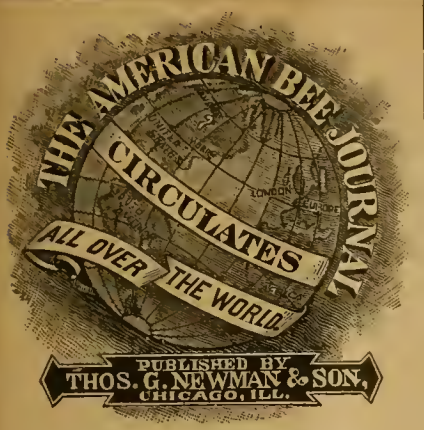
Moore's Universal Assistant, and Complete Mechanic.—This book contains 1,016 pages of over a million industrial facts, calculations, processes, trade secrets, legal forms, items of business, etc., of vast utility to every farmer, mechanic and business man. This is a veritable treasury of useful knowledge, and well "worth its weight in gold" to any mechanic, business man, and farmer. Price, bound in cloth, $2.50.

Dictionary of Practical Apiculture, by PROF. JOHN PHIN.—This book gives the correct meaning of nearly 500 apicultural terms. Price, bound in cloth, 50 cents.

Practical Hints to Bee-Keepers, by CHAS. F. MUTH.—It gives his views on the management of Bees, and details his method for the cure of Foul Brood. Price, 10 cents.

Dzierzon Theory.—The fundamental principles of Dzierzon's system of apiculture as set forth by Berlepsch. It was translated by the Samuel Wagner. Price, 15 cents.

The Hive I Use, by G. M. DOOLITTLE.—It details his management of Bees, and minutely describes his methods for the production and care of comb Honey; management of weak colonies; how to control swarming; how to get the largest yield of honey, etc. Price, 5 cents.



THOMAS G. NEWMAN,
EDITOR.

Vol. XXV. Dec. 28, 1889. No. 52.

EDITORIAL BUZZINGS.

We Wish all our readers and patrons
"A MERRY CHRISTMAS,
and a prosperous and
HAPPY NEW YEAR."

☞ This number completes the Twenty-Fifth year of the AMERICAN BEE JOURNAL —a full quarter of a century. It is old and tried, and ever faithful to its trust.

☞ The full and complete Index in this number will be very valuable to all who keep the numbers for reference, or who use Binders. It covers not only the subjects, but the illustrations, and the names of the correspondents.

☞ Much interesting matter is crowded out of this issue, by the Report of the International Convention and the copious Index. It will appear, however, in the first number of the New Year.

☞ The bees that are left on the summer stands have "had a picnic" this fall. The weather has been so mild—in fact quite "warm"—so that they have been "on the wing" considerable of the time. Winter holds off, and so far we have had no cold weather in this latitude. We hope that Old Winter will not "dally in the lap of spring" to pay for it.

☞ The Eastern New York bee-keepers will hold a Convention at Albany, N. Y., on Jan. 20 and 21, 1890.

Clubs of 5 for $4.00, to any addresses. Ten for $7.50, if all are sent at one time.

Queen-Bees are now mailable to foreign countries. In accordance with our request, and the letters of apiarists who have written to him, the Superintendent of Foreign mails has succeeded in getting bees admitted to the mails of countries of the Universal Union. The Postmaster General has just issued the following circular relative to the matter:

OFFICE OF FOREIGN MAILS,
Washington, D. C., Nov. 23, 1889.

The International Bureau of the Universal Postal Union, at Berne, Switz., having advised this Department that certain countries of the Postal Union have consented to admit to the mails they exchange with other countries, packages containing QUEEN-BEES; provided the bees are packed in wooden boxes, not exceeding 5x2x1½ inches in size, closed with a wire screen protected by a movable wooden lid, and that postage thereon is prepaid, either at the rate applicable to letters or to "samples of merchandise" in Postal Union mails:

IT IS HEREBY ORDERED: that on and after the 1st of December next, Queen-Bees, in boxes which would entitle them to transmission in the domestic mails of the United States, and not exceeding the dimensions above named, shall be admitted to the mails that are exchanged between the United States and the Argentine Republic, Belgium, Bulgaria, Chili, Columbia, Congo, Dutch West Indies (Curacoa, etc.), Egypt, Guatamala, Hayti, Hawaii, India (British), Italy, Liberia, Mexico, Paraguay, Portugal and the Portuguese Colonies, Roumania, Siam, and Spain and Switzerland, at the postage rate applicable to "*samples of merchandise*"; and to the mails exchanged between the United States and Austro-Hungary, France, Germany, Greece, Luxemburg, The Netherlands and Dutch Guiana, provided postage thereon is *fully prepaid* at the rate applicable to *letters*, viz: five cents per half-ounce, or fraction of half-ounce.

JOHN WANAMAKER,
Postmaster General.

Postmasters will cause due notice of the foregoing to be taken at their offices, and issue the necessary instructions for carrying it into effect.

N. M. BROOKS,
Acting Superintendent of Foreign Mails.

Candy for Winter Feeding.—We are requested to give a recipe for making candy for feeding bees over the frames in winter. Here it is:

Use four parts of coffee A sugar, and one part of water; simmer until it becomes quite hard, on being cooled; mould it into frames of one-inch thickness, and lay it on the top of the frames, using sticks underneath ½-inch square, to give the bees free access to it, and the heat of the hive will keep it warm, and soften it.

☞ The Rev. W. F. Clarke writes thus: "The ILLUSTRATED HOME JOURNAL is a welcome monthly visitor to our house. With wife and daughters, it is 'who's who' to get the first read of it. I have to come last, because I am obliged to take it as a relief and relaxation from sterner studies. But I enjoy it very much when I can get to it. We all like it, and so do our grandchildren, cousins and aunts. It is a truly family magazine, containing something for all, whether old or young, that cannot fail to be interesting and instructive."

☞ The BEE JOURNAL gives 52 dividends in a year on an investment of one dollar. Can any one desire a better investment, or richer returns?

Color of Honey.—Mr. J. C. Lee, of Brooklyn, Pa., asks this question:

I heard two bee-men express different opinions about basswood and white clover honey. One claimed that basswood honey was the whitest honey gathered, and that white clover honey was not colorless, but of a yellowish tinge. The other claimed just the reverse of this. Will you please state the color of the two kinds of honey, in the BEE JOURNAL?

White clover honey varies in tint from pure white to amber, according to the location where it is gathered. That from the hill sides varies in color from that in the valleys. Atmospheric conditions, soil, and climate have much to do with its tint. Basswood honey is white, invariably.

Bees and Honey in Indiana.—We have received the Biennial Report of Statistics for Indiana. The total number of pounds of honey reported are 1,624,683 for 1887, an increase of 566,800 pounds over the product of 1886. The average to each colony is about 16 pounds. In 1888 the honey crop had decreased to 923,922 pounds—only a little over one-half of what it was in 1887. The average per colony in 1888 was only about 7 pounds.

Honey Almanac.

Here is what is said of it by those who have seen the Honey Almanac:

It is to every bee-keeper's interest to get the Honey Almanacs well scattered about in his immediate vicinity, especially if he has not got as large a trade as he wishes to have. As for me, I can sell more than I can produce, to do my best, and there is upward of 400 colonies kept within a radius of one mile of my own apiary—all within the limits of the city. I have on hand now 70 colonies.—B. E. Rice, Boscobel, Wis.

We have received the Honey Almanac, and are greatly pleased with it. The book is brimful of choice recipes for cooking, thus commending itself to the housewife; while it contains directions for the use of honey and beeswax in combination with other ingredients, valuable in case of sickness and accident. It also clearly demonstrates the fact that comb honey cannot be "manufactured;" and, altogether, it is one of the best advertisements a bee-keeper can have for the sale of his products. A number of these Almanacs distributed in a town, ought materially to increase the demand for both comb and extracted honey. —*Bee-Keepers' Guide.*

Prices:—25 copies for $1.00; 50 copies for $1.50; 100 for $2.50; 500 copies for $10.00; 1,000 copies for $15.00, delivered at the freight or express office here. The bee-keeper's Card will be printed upon the first page, without extra cost, when 25 or more are ordered at one time. Postage, 40 cents per 100 extra. All orders can now be filled as soon as received.

☞ Whoever before heard of a set of the Waverley Novels being sold for less than $12.00? Just think of our offer of either these or the Works of Dickens, with this JOURNAL until Dec. 31, 1890—all for $2.10! See the last page of this paper.

The Language of Clover.

Written for the American Bee Journal
BY EUGENE SECOR.

Tell me, little winged rover,
That art happy in the clover,
Playing hide-and-seek all day,
While I mow and rake the hay—
Tell me, dainty, restless bee,
What you in those flower-cups see,
As you roam the fields among,
Gleaning treasures with your tongue.

Thus the sprightly miss replied,
As from flower to flower she hied:

"Whenever I journey o'er field or glen,
In search of the nectar in clover,
And peep in the red and white blossoms, then
I think of a maiden with lover.
The *red* are the blushes on modesty's cheek—
Tho' white is the bride's favorite color—
So I a sip from the former do seek,
But am wedded to white, tho' duller."

Further quoth her busy sister,
That well had spoke, or I had missed her:

"This fact I observe in my travels:
Not the brightest are the sweetest,
Not the largest are completest;
The knowledge of *worth* unravels
The mystery why we often
Pass the showy gardens over,
Seeking modest, sweet white clover,
Hidden in the meadow corners."

Then up spoke a cousin we call *Americana*,
A bee "at home," North, or in Louisana:

"But the red and the white with the blue sky above,
Make the colors which all Americans love;
And the stars and the stripes in triumph wave over
The land where we find nearly all kinds of clover."

A queen bumble-bee came buzzing that way,
And this is what I heard her say:

"Those distant relatives spoke quite well,
But have not told it all;
There's more in clover yet to tell,
So I'll some facts recall.
The threefold leaf suggests to me
Its triune virtues rare;
Where clover grows, the mighty three—
Beef, milk and honey are.
And where this last, *best* gift is found,
To bees and clover due,
What flocks are there! What fruits abound!
What wealth the wide world through!
The world itself, too, is a gem—
It's always running 'over.'
With 'love' and 'lover'—sweetest words
Because they're found in *clover*."

Forest City, Iowa.

HISTORICAL.

Some Facts About Mailing Bees 27 Years Ago.

Written for the American Bee Journal
BY C. J. ROBINSON.

I submit a few historical notes relating to the origin of shipping queens per mail. In Dadants' revision of Langstroth's book, it is recorded (as new matter) that Mr. Townley and Mr. Alley were the first shippers. Such record has no foundation in fact, and is erroneous, as I know from personal knowledge.

The Rev. L. L. Langstroth was the first queen-breeder who shipped Italian queens by mail. The history of the matter is: In 1860, L. L. Langstroth & Son bred queens from the Italian queens imported by S. B. Parsons. J. P. Mahan bred from queens imported by himself. His queens and those for Mr. Parsons came into New York harbor on the same ship, and arrived in September, 1859. Later, our lamented Samuel Wagner and Richard Colvin imported queens, from which Mr. Colvin bred queens for sale. Still later (in 1861) William Rose, of New York, imported Italian bees.

In the season of 1861 there was a lively competition in the queen-trade. All of the queen-breeders sent queens by express. Mr. Langstroth bred or furnished his queens in boxes or frames 5 or 6 inches square, and he sent queens with a hundred or more workers on one frame by express. Mr. Mahan, who was joint owner with Mr. Langstroth of the Langstroth patent, used comb frames running from side to side of Langstroth hives, instead of running from end to end of the hive.

In sending queens ordered, he placed one of the comb frames, on which were a queen and a few workers, in a box suitable, as for a cage, and forwarded all by express.

I received queens from Mr. Mahan by express, and one queen from Mr. Langstroth. I was distant 20 miles from the express office, and was bothered to get queens from the office when they arrived.

In the summer of 1863 (it may have been in 1862) I was inspired with the idea of shipping queens by mail. Then I wrote to Mr. Langstroth, stating that I conceived the idea of sending by mail instead of express. He promptly answered me, giving it as in his opinion that the plan of mailing queens was not practical. On reading his answer I determined to experiment, and I got a paper-box about the size of a Peet cage, but thicker, put in one end a piece of old comb with honey in it; fastened it with a needle and thread; punched holes in the box with an ilet punch; caught a common queen; let a few of her workers on to the honey in the cage; dropped in the queen and closed the box; wrapped paper around the cage, making holes to correspond with the air-holes in the box; addressed the package to L. L. Langstroth & Son, Oxford, O., and put it in the mail-pouch.

A few days later, I received a letter from Mr. Langstroth, informing me that the bees came all right, and that he began to believe that they might be transported through the mail. He, at the same time, sent me an Italian queen in a very small cage—a pine stick one inch square, corners dressed off, and a $\frac{5}{8}$-inch hole bored in one end about $2\frac{1}{2}$ inches deep, a bit of honey (in comb) put in the bottom, the queen and some six workers put in the hole, wire-cloth nailed on the open end, and a paper having on it my address was glued on the stick.

The package came all right in the mail, but the bees were dead, and the queen (a fine Italian) was just dying when I received it. The cause of their dying was because they were daubed with honey.

I reported the arrival of the bees and his ill-success, whereupon he mailed to me another queen. The cage was like the first, only a little larger. Both queens were fine, beautiful Italians, and he sent them gratis.

Such was the origin of mailing queens. Messrs. Langstroth & Son at once adopted the plan of sending out queens to their patrons by mail, and were the first to do so, and others followed Mr. Langstroth's way of shipping.

As for myself, I never sold a queen, and do not make any claim other than that of the original thought, and executed the plan, set the example first, and then Mr. Langstroth put it into practice. I wish to have given to Mr. Langstroth that which is his due, and I want what is due me. I know that Mr. Langstroth has priority over all others in the business of sending out to patrons Italians queens by mail transit. I feel that it is unjust for other parties to be credited with the honor, and that, too, in his famed book.

I am aware that I am looked upon as being inimical to Father Langstroth. Such has, I presume, been prompted by reason of some of my criticisms, but I want to do justice. He was greatly benefited by my suggestion and experiment, and he so acknowledged at the time. At that period I was one of his few disciples. Mr. Langstroth was being driven to the wall during the period from 1860, and later years. See his answer in June, 1861, which was published in the *Country Gentleman*, and copied into the AMERICAN BEE JOURNAL, in the June issue for 1861. I then esteemed Mr. Langstroth about the same as do his latter-day disciples. Herewith I enclose for your perusal a leaf from the *Country Gentleman*, on which is an article I wrote. What prompted me to write it, was the circumstances of the case. Mr. Langstroth is a very modest man—a clever soul—not actively brilliant—his aspirations were only for mutual good—he was no financier, and he could not cope with such brainy, active men as were his opponents. I saw how it was in the

race for patronage, and it excited my sympathy for friend Langstroth, and I aimed at his rescue.

I wrote to Messrs. Dadant after reading their response to my article in the AMERICAN BEE JOURNAL, and referred them to Mr. Langstroth to corroborate my statement as being first to mail queens. They answered by saying that Mr. Langstroth is not in a condition to answer inquiries. Certain it is he has been able to answer as to the origin of mailing since they (Dadants) commenced the revision. If they wished to record that history, they ought to have sought the information from reliable sources, and if they were unable, as they confess, to obtain reliable information, not record any history relating to the origin of the plan.

The AMERICAN BEE JOURNAL was discontinued during a period of some three years. I well remember its being discontinued because the war absorbed the attention of our whole country to that extent that infant enterprises were neglected—could not weather the storm. If I am not mistaken, the AMERICAN BEE JOURNAL was not issued in the summer of 1863, the time of mailing the first queens thus sent out.

On page 276 of the AMERICAN BEE JOURNAL for 1881, appears an article written by myself, under the heading, "Origin of sending queens by mail." Prior to that date, the editor mentions my claim, copied it, I think, from the *Bee-Keepers' Magazine*. In a letter received from Mr. Frank Benton a short time ago, he said that he was cognizant of the fact that I was the first to send a queen in the mails, and that *he* was the first who succeeded in sending safely queens per mail across the seas. I propose giving Mr. Langstroth the honor of being the first who shipped queens by mail to purchasers.

[The AMERICAN BEE JOURNAL was suspended during the war, from January, 1862, to June, 1866, and that accounts for the lack of history of the passing events during that time. Our friends, Messrs. Dadant, we feel sure, will make the necessary correction in the next edition, which will be issued at no distant day. Meanwhile, the AMERICAN BEE JOURNAL most cheerfully records the interesting bit of history, and gives credit and honor to whom honor is due. This, we think, will satisfy all reasonable beings. The copy of the *Country Gentleman* for July 28, 1864, which Mr. Robinson sends, fully corroborates his assertions about bees being then sent in the mails by Mr. Langstroth.—ED.]

VISITING.

Description of a Visit to a Connecticut Apiary.

Written for the American Bee Journal
BY LUCY JANE SHERMAN.

I have recently visited an apiary situated about five miles from here, and I will give a short account of it.

It is called the "Riverside Apiary," and is in West Norwalk, Conn. To one "not to the manor born," the drives between the Norwalks, Noroton, Rowayton, and New Canaan, are all interesting. Everywhere we see very old houses with gable-roofs and stone chimneys, and shingles in place of clap-boards. Stone-walls abound, and in every direction the land looks "rock-ribbed and ancient as the sun."

Riverside Apiary belongs to a Mr. Johnson. He is preparing to winter 28 colonies. His hives are almost exactly like the Cary chaff-hive. His specialty is rearing queens, though he sells both comb and extracted honey. He has sold 1½ tons of honey the past summer, 1,200 pounds of which was from white clover, and sold in July for 25 cents per pound. The rest has brought 20 cents—even for the extracted honey. He considers this one-third of a crop. He has two extractors in the honey-house.

A SUN WAX-EXTRACTOR.

He has one machine which I have never seen before, and which he claims is his own invention. I think that he called it a wax separator. Its object is to melt the wax and separate it from the impurities. It consists of a wooden box lined with tin, which contains water about one inch deep. The cover is lined with some highly-polished metal, and is fastened to the box with hinges. Within the box is a tin-pan made to fit the box, only not so deep, with a depression in the bottom, and something like an inverted tea-strainer inserted.

The scrapings of the wax are put into this pan, and covered with a tightly-fitting glass cover. The outside cover is left up, at right angles with the box. The sun strikes the highly-polished lining, is reflected on the glass cover below, causing heat sufficient to melt the wax, which runs through the inverted tea-strainer, into the water below, while the refuse remains in the pan.

There are no trees in this apiary—it is a sort of "five-acre lot" behind the house. On one side, full 50 feet below, is Five Mile river, which, at this point, is only a respectable brook in size.

DECOY FOR SECURING SWARMS.

Mr. Johnson does not use a drone and queen trap; to secure swarms, he clips the wings of every queen, and when a swarm issues, he uses a *decoy*. I had never seen a decoy, and for the benefit of those equally ignorant, I will try to describe this:

Two pieces of wire-cloth of equal size are fastened to frames, perhaps six inches square, connected by hinges, and fastened to a pole 4 or 5 feet long. This pole is fastened to two other poles shorter than the first, but equal to each other. These three poles are set in the ground in front of the hive which is casting a swarm.

The wire-cloth frames open like a book, and some part of the swarm is likely to settle underneath them. Meanwhile the bee-keeper takes what he calls a "queen-bottle"—that is, a piece of wire-cloth joined so as to form a cylinder, with a cork at each end—picks up the queen (she will be found in front of the hive, as her wings are clipped), puts her into the bottle, puts in the cork, and hangs the bottle on the decoy. Of course, all the other bees join those on the decoy, and the swarm may be hived easily.

I visited another apiary the same morning, but it was no larger than the first-mentioned, and apparently had no distinctive features.

Rowayton, Conn., Nov. 19, 1889.

BEE-TALK.

International Convention at Brantford, Ont.

Written for the American Bee Journal
BY W. Z. HUTCHINSON.

THIRD DAY.
MORNING SESSION.

The convention was called to order at 8:30 a.m., with President Mason in the chair. The exercises were opened with prayer, by President-elect R. L. Taylor.

It was voted that Thomas G. Newman & Son be paid $15.00 towards printing in pamphlet form the Report of the proceedings of this Convention, and to furnish a copy for each of the members, by mail.

Contradicting Reports Injurious to Bee-Keeping.

E. R. Root called attention to the Chicago *Herald* affair. It had published false and misleading stories regarding "manufactured honey," and failed to retract until numerous letters from subscribers came pouring in. A large number of letters from *subscribers* seems to have a wonderful effect upon an editor. Mr. Root urged all bee-

keepers to write *at once, themselves*, to any paper in which they saw false statements regarding their industry, and its products, and contradict them. This would do more good than anything else that could be done. Mr. Root then read an essay upon,

Riding Hobby-Horses.

Bee-Keeping as a Recreation from Other Pursuits, and an Antidote for Disease.

A hobbyist, or one who rides hobby-horses, is, according to Webster, one who pursues anything unduly, or to the weariness of others. I am not one who would advocate riding hobby-horses to such an extent; but I am one who would, by all legitimate means, encourage healthy enthusiasm in bee-keeping, or, in any other pastime or pursuit.

Riding hobby-horses has been a characteristic of the Medina "Roots." In harmony with such characteristics, perhaps I have inherited my due share. I am going to talk to you to-day on the benefit of having a mild hobby—not one that will make its rider get so crazy as to neglect his legitimate business, but one that will help in its pursuit.

Coming down to the subject, the first question I ask is, "What do we keep bees for?" You answer, "For the production of honey and wax—that is, for the *money* that there is in them." But is this the only reason? Nay, verily. We not only keep them for the *money* that there is in them, but for the real fun that we can get out of them—a sort of fun that is akin to a healthy enthusiasm; a fun that lightens the burden of our daily toil, gives zest to life, and a new lease to it.

In a late number of that excellent periodical, the *Bee-Keepers' Review*, Prof. Cook Cook says:

> In every business, one can do better work if some variety comes into the life. This rests the mind, brightens the hopes, and makes the success better in both lines. Thus the minister, the lawyer, and the teacher, think and speak to better purposes from their work and experience in the apiary. The bee-keeper has clearer thought and better success from his rest periods, when he wrestles with the problems of how he may save souls, save property, or educate his fellows.

The Professor is in a position to know whereof he speaks, and he hits the point exactly. "All work and no play makes Jack a dull boy." Close application to work of the every-day sort, year in and year out, wears on the constitution; but if one has a hobby-horse to release the tension during his odd hours, he will not only enjoy the work more, but live more and better, as Prof. Cook aptly puts it. Several instances come to my mind, viz:

A business man of my acquaintance gave such close attention to his business as to become morbid, even despondent. When he arose in the morning, it was his *business;* when he ate his meals, it was his *business;* when he went to bed, it was his *business;* and in his dreams it was his *business;* and the result was, melancholia came upon him, and the end was suicide. A mutual friend, in speaking of this sad event (who was considerable of a horseman, and who enjoys breaking colts, and whose hobby, by the way, is horses), said: "If that man (Mr. W.) had had a fine colt, and had gone out mornings to take a little drive, breathe in the fresh air, and watch the development of this noblest of animals, he might have been alive now, and such a thing as despondency might have been unknown to him."

Another friend of mine, a teacher of music—and most musicians are more or less nervous — confessed one day that thoughts of suicide continually entered his mind; and, as a confidential friend, he asked my advice. Said I, "You lack variety in work. You need recreation in the shape of a hobby, to interest you, aside from your duties." Of course, I advised him to keep bees. But he had such a natural aversion to them that the thought was utterly out of the question. I next suggested poultry. He embarked in the business, and now his health is not only much improved, but that dreadful thing that sometimes afflicts humanity—melancholia—is gone. He has obtained a new lease of life, and enjoys the work of his profession; and when he goes home from his work, he works with a keen zest among his poultry.

I might take one more example, and a very familiar one, I doubt not, to many of you. My father once was, as you know, a jeweler by trade. Close application to business, however, brought on paralysis. The doctor advised him to get out-doors and work with his bees. The result was, that the jewelry business was in time abandoned, and bee-keeping as a pursuit was adopted. His health returned, and a new lease of life was added. Again, editorial work, together with general business, broke down his health. The green-house and garden hobby was next taken up, and health has again been restored. Instead of dying worn out, he is in possession of almost his full vigor.

Once more, if you will pardon the allusion, I will refer to my own experience. At a comparatively early age in life I had hobbies, not because my health demanded it, but because I inherited these tendencies. First it was electricity; then that most interesting of pastimes, the study of the microscope. Later on in life, when I began to assume responsibilities in the work in which I am now engaged—namely, bee-journalism and bee-keeping—I felt constantly the need of a change. Amateur photography attracted my odd spells, and very soon it became a most enjoyable pastime; and at the supper-table I was ever and anon talking about "that last photograph I took," "instantaneous exposures," and "flash-light negatives," until my hobby-horse was indeed a weariness of flesh to my better-half.

The result of the hobby was, that it gradually incorporated itself into my general work, and the consequence was, that many of the articles in *Gleanings* were illustrated which would not otherwise have been.

Later, out-apiaries began to attract my attention; and feeling the need of a good horse—one that could get over the ground pretty lively—I was soon in possession of a fine colt—an animal that was intelligent, and one that reciprocated in many ways the little attentions that I gave him. He was a *hobby-horse* in very fact. I read up all I could find on the subject of horses; I enjoyed driving him; and when I got back to my regular work, I hardly know why, but everything possessed a joy that it had not before. *Gleanings* was made better, perhaps, and some of my long, prosy articles were made more concise.

While these hobbies did not build up a broken-down constitution, as in the other instances, they served admirably to preserve a general good health, on the principle "that a stitch in time saves nine." They did another thing: They kept me in my younger years away from the street-corners, and from contracting bad habits at that age in life when boys are easily led astray.

It is to be observed, that I have had several hobbies. I have looked the field all over. I know something of the attractions in raising fine poultry; I have experienced the passion of studying and working with electricity; I have seen a little of the hidden beauties revealed under the lens of the microscope; I know what it is to appreciate and enjoy a good photograph; I believe I can tell when I see a good horse—whether he has got a good action; whether he is sound; whether he can travel a mile in 4 minutes, or whether he can make that distance in 3 minutes, or in 2:10; but not one of these hobby-horses presents half the attractions that the study of bees does.

Bee-keeping is eminently well-fitted as a pursuit, and as an amusement for the busy man who spends long hours in the office. There is nothing of the kind that stimulates study, that fires up enthusiasm, that rests the mind, and so gives a new lease of life, as does bee-keeping. To ministers, there is an unlimited field of illustration in the bee-hive. D. A. Jones once said to me, that he did all he could to induce ministers to take up bee-keeping, not only because it gave them another means of livelihood, but because it opened up to them a world of illustrations, and at the same time gave them one of the most delightful of pastimes.

And now let me glance briefly at the latter end of my long-tailed subject—"Bee-keeping as an antidote for disease." Many of the minds of those present will recur to Mrs. Sarah J. Axtell, of Roseville, Ills., an invalid who is confined to her couch during the greater part of the year. When the bees begin to work in the fields, little by little she gets out into the apiary, and finally she is able to accomplish the work of most strong men. Her husband, likewise, has poor health, and yet they both experience better health while at work among the bees. In a single season, from 180 colonies they once obtained 39,000 pounds of honey, and sold the whole for cash. If my time was not so limited, I might mention scores of similar instances.

I think it is safe to say, that a very large percentage—perhaps a half—of those who keep bees were attracted to that business, not because of the money there might be in it, but because of the delightfulness of the occupation, and because of its influence upon the health. Dr. C. C. Miller, as a musician, has had offers of large salaries that would dazzle the eyes of most of us; but, no, he prefers God's pure air, and out-door work with the bees.

But, you say, "You are going to get everybody to go into the bee-business, and so break down prices." Oh, no, not at all. Intelligent, reading people who *need* recreation or diversion in the garb of a hobby, are not the ones who would break down prices. We get from the ranks of such people such scholarly men as Prof. Cook, Dr. C. C. Miller, P. H. Elwood, S. Corneil, and scores of others whom I might name.

My object in writing this, is not to point out how bee-keepers can *earn* more money, but to call the attention of professional and business men, and overworked men in general, to something that will lighten their daily toils, give them a new lease of life, and open their hearts to a new world.

ERNEST R. ROOT.

S. Corneil thought that there was danger of riding hobby-horses too hard. If the interest in the hobby becomes too great, it is injurious.

R. McKnight agreed with Mr. Corneil. He (McKnight) began keeping bees as a pastime, and became so interested that he sat upon a stool, under an apple-tree, four days, waiting to see the first swarm issue (laughter). He now prosecuted the business for the money there is in it.

R. L. Taylor began keeping bees as a pastime, and became so interested that he could not let it alone. He said

that business men ought to be careful how they take up bee-keeping as a recreation. If they become so interested that they neglect their other business, it is then "all day with them." This is really a more serious affair than one would suppose. "*I*," said Mr. Taylor, "got upon the hobby-horse of bee-keeping, *and couldn't get off*, and *now* I don't want to get off."

President Mason—I think that Mr. Taylor is right. I have often thought, although I have never before said it, that I would have been better off if I had never kept a bee. I think that the warning of Mr. Taylor is appropriate.

Bottles for Honey.

R. McKnight showed some samples of bottles for honey. They were imported; none like them are made in this country. One style is called the "tie-over," because a parchment is tied on the cork. Some of them had screw tops. They varied in size from one-half pound to 3 pounds. They were almost unbreakable, as was shown by the manner in which Mr. McKnight kicked them about the platform, and allowed them to be tumbled from the table. He showed bottles filled with honey in 1888 that had never granulated. The honey was heated to near the boiling-point, then sealed up while hot. He admitted that the flavor was slightly affected by the heat.

Swarming Without Drones.

"Do bees ever swarm before the queen has laid any drone-eggs?" was asked.

President Mason said "Yes;" and gave this as a reason why he thought that the use of wooden combs would not prevent swarming.

Combined Supers and Shipping-Crates.

"Can honey be produced in the same receptacle in which it is to be shipped?"

E. R. Root—It can, but it is scarcely advisable.

R. L. Taylor—I have two brothers (farmers) who produce honey in this manner, and secure nearly as much in price as those who clean and crate their honey.

The convention then adjourned until 1:30 p.m.

AFTERNOON SESSION.

The convention was called to order at 1:30 p.m.

Mr. Ivar S. Young, of Christiana, Norway, sent a sample case of honey to be shown at the convention. If the sample sent is a fair production of the honey of that country, the inhabitants have no need to be ashamed of it. It is very light in quality, and very elegant in flavor. Considerable time was taken up in inspecting this honey, after which the thanks of the association were tendered Mr. Young for the honor he conferred upon them in sending the samples of honey to the convention, and that the Secretary forward a copy of the resolutions to Mr. Young.

The Convention then listened with delight to the reading of an essay by Prof. A. J. Cook, illustrated with colored charts, upon the

Alimentary Apparatus of Bees.

If there be truth in the doctrine of organic inertia, and if modification of organs and organisms has risen wholly, or in part, through impringement upon their surroundings, then for the maximum of differentiation, we should look to organs and organisms most used, or those most important in the organic economy.

Nutrition is the great function of animal life. To secure and prepare the food is the chief work, at least of all the lower forms of animal life. We should expect them to find differentiation most marked in such organs as are useful in procuring the daily bread. Among insects, the legs, wings and alimentary organs are the real weapons in this important work of "bread winning." In bees, where the habits are so marvellously varied, we should expect a marvellous variation or modification in these organs—nor would we be disappointed. I think we would hardly except man himself, in the remark that nowhere in the whole animal kingdom, do we find more interesting and startling structural developments than are to be found in our study of the honey-bee.

Two years ago, at the Chicago meeting of this association, I showed how vividly this is illustrated in the modification of the legs. The modified-hairs, antennæ-cleaner, wax-jaws, pollen baskets, and pulvilli are marvels of structural modification, for the attainment of specific purposes. The functional complexity of the legs of these insects, is only equalled by their marvellous development and structural differentiation.

In this essay, I wish to explain the anatomy and physiology of the alimentary system of the bee. In the tongue, and digestive system of this insect, we find a structural modification even more surprising than that of the legs, equally, if not more, marvelous than is to be found in any other organic structures.

In this essay I shall confine myself to a discussion of the tongue, the glands, the stomach, mouth, honey-stomach, and true stomach.

It is a curious fact that long and familiarly as the bee has been known, yet in all the descriptions no one has rightly understood the bee's tongue. I know not a single discription that is entirely accurate. Many of our latest writers are not as correct as was the grand old master Swammerdam. Even the last editor of the admirable Encyclopedia, Brittanica, is wholly wrong. It says (Vol. III, page 485), "It is not tubular, as Swammerdam had supposed, but solid throughout, and the minute depression at the extremity is not the aperture of any canal through which liquid can be absorbed. It performs strictly the office of a tongue, and not a tube for suction." Every statement in this paragraph is entirely untrue.

The bee's tongue is a double tube. The inner or central tube of the tongue is perforated at the end, and through this, nectar is drawn from tubular flowers. This tube is slitted, too, near the end, on the under side, and the edges of this rigid slit are united with the corresponding edges of the outer tube by a somewhat folded membrane. The length of the tongue varies from .23 to .26 of an inch. It is longer in the yellow than in the black races.

At the base of this double cylinder, just anterior to where the ligula joins the mentum, the central tube opens by a short slit on its upper side. By holding bees by the wings, and permitting them to sip colored liquids, and then by cutting off their heads while still sipping, it is easy to learn just how they sip. When they have access to a large drop of nectar, they not only draw the liquid through the central tube, but also through a much larger extemporized tube, formed by approximating their maxillæ. This is the way they suck the honey from such bountiful sources as the linden, where a single colony of bees may store 15 pounds in a day.

In case the nectar is at the bottom of long corolla-tubes, then the bee can only use the small central tube, and must sip very slowly. Again, in case the nectar is spread out thin on any surface, the bee can throw the central tube out by tightening the folded membrane, and, by parting the slit, can draw in and lap up the spread-out liquid. This is also a slow process.

The outer tube is imperforate at the end, and by filling this with blood the tongue is speedily elongated. Thus the tongue is extended by the action of the muscles, aided by this protrusive force of the nutritive fluid which is also forced into the tongue by muscular action.

Connected with the digestive apparatus, are three pairs of glands. The upper head-glands are high up in the head cavity, and in structure, resemble a compound leaf, or the meibomian glands in our own eye-lids; that is, a central tube receives the ducts from numerous follicles. These main ducts empty one on each side at the base of the mouth.

Below the glands just mentioned are the lower head-glands. These are compound, racemose glands, and empty into a long duct, which also receives the ducts from a second pair of similar glands located in the thorax. The common duct from these four glands empties just at the position of the slit at the base of the ligula, just where any secretion could be best poured into and mixed with the stream of nectar that might be drawn through the tongue in any of the three ways already mentioned.

The function of these glands has, I think, been misunderstood in part, by even such authorities as Leuckart and Schiemenz. They think that the upper head-glands secrete the larval food. I feel sure that this is wrong. I believe they secrete the saliva of bees, a substance analogous to our own saliva, in that it is mixed with the pollen or bee-bread, and renders it soft and plastic. More than this, I think the secretion from the glands doubtless furnish the ferment which aids to digest the pollen or albuminous food of the bees. The fact that the nurse or young bees furnish chyle or digested food to nourish the thousands of larvæ of each hive, and also to feed the queen and the drones, explains why these glands are so large in the nurse-bees.

My reasons for this view are, that the mouths of the ducts on the bee's mouth are just where they should be; the large size of the glands in the nurse-bees is also in harmony with this view, and except for this secretion we cannot explain the deglutition of the pollen.

The function of the secretion from the other four glands is without doubt to digest nectar of flowers. As is well known, this nectar is neutral, and contains cane sugar. Honey is acid, and contains reducible sugar. Thus honey is digested nectar, and the secretion from the large racemose glands of the bee is the agent which effects this transformation. The common duct from these glands empties just where the

stream of honey from the tongue enters the mouth. This honey must be digested while in transit from flower to hive.

The fact that a colony of bees may gather 20 pounds of honey in a day, explains the necessity of the great size and number of these glands. The fact that all honey is not equally reduced, and that some honey has even a right-handed rotation, is also explained. When honey is collected very rapidly, as is often true in the linden season, it is not fully digested. This makes the analysis of honey a difficult matter. I much question whether any chemist can certainly determine whether or not honey is pure. I positively know that some of our best chemists have pronounced honey of undoubted purity, to be adulterated. To one acquainted with the physiology and habits of bees, this is not surprising.

The honey-stomach is a strongly muscular organ, richly lined with epithelial cells, and in no wise peculiar, except for the interesting and complex stomach mouth at its lower end. This is a slightly oblong, nearly spherical organ, with a central passage. The four segments which comprise the anterior end are jaw-like, slightly movable, and have a peculiarly snapping motion, as is easily seen by viewing a fresh specimen under a low power objective.—Short bristle-like hairs form a thick lining to the central cavity. These hairs point downward.

The function of this unique organ is as interesting as its structure. The fine pollen-grains of flowers, as you all know, are light and airy, and so float in every breeze. As they fall from the overhanging anthers, they often lodge in the same nectar that attracts the bees. Thus as the bee sucks the nectar from the flowers, it secures at the same time more or less of this rich nitrogenous pollen. The pollen and nectar pass together into the honey-stomach. When the bee reaches its brood-nest, it desires to pass the honey—for by this time the nectar has been digested—into the cells, where it is stored for the future needs of the bees. But while we find a small amount of pollen in the honey, we find much less than is found in the nectar. But how can the bees separate this pollen from the nectar? It is done by this stomach-mouth, the jaws of which are constantly opening and shutting as the bee is gathering from flower to flower, and is bearing its full load to the hive. Thus the mixed nectar and pollen are drawn into the central cavity of the stomach-mouth, when the jaws close, pressing the nectar back into the honey-stomach, while the pollen is retained by the bristles, and passed into the true stomach. This constant motion also mixes thoroughly the nectar and saliva, thus promoting the digestion of the nectar or the formation of the honey.

We see, then, that the stomach-mouth is a sort of screen, whose purpose is to separate the nitrogenous from the carbonaceous food. The former is in small quantities, just sufficient for the daily needs, while the honey comes in large quantities, and is stored up for times of scarcity.

Where the stomach-mouth enters the true stomach, the central opening is continued in a free membranous tube which hangs in the true stomach. This, of course, serves as a valve, and prevents the digested material (as it is pressed by the muscular action of the stomach), from returning through the stomach-mouth into the honey-stomach.

It is now a well-known fact that the nurse-bees digest the food for the larvæ, the queen, and the drones. It is probably true that all the albuminous food of both queen and drone is prepared by the nurse-bees.

The upper head-glands are not found in the drones, and are very rudimentary in the queen. Thus these bees are not able to take and digest pollen. They can take the honey, and so have the racemose glands, which, in case the nectar was not fully digested by the worker-bees, enables the queen and drone to complete the digestion. Thus the queen, during the active season, while she is often laying 2,000 or 3,000 eggs daily, receives her food all prepared for absorption, and so we understand how it is that the queen may lay nearly twice her weight of eggs daily. I have weighed laying queens several times, and find them to weigh about .23 of a gramm, or about 35 grains. I have found that 3,000 eggs weigh about .4 of a gramm, or about 60 grains. This wondrous performance is only possible, in that the queen's food is wholly digested for her by the nurse-bees.

The nature of the food given by the nurse-bees to the brood, and to the queen and drones, has been much discussed. Dufour thought that it was chyle, or food fully digested and ready for absorption. Schiemenz argues that it is the secretion from the upper head-glands. Schonfeld believes that Dufour was correct—digested pollen with additions of honey.

Schiemenz thinks that the valve that reaches from the stomach-mouth into the true stomach, would make it impossible for the bee to regurgitate any food which had really entered the true stomach, and so argues, despite the location of the mouths of these ducts, and the necessity of saliva for the liquification of the pollen, that the jelly or larval food is really the product of the upper head-glands. From several experiments which I have tried, I believe Schonfeld and Dufour are correct, and Schiemenz in error. One experiment which in itself seems crucial, I will explain:

I removed from a small colony of bees all the honey, gave them a frame of brood, and shut them in their hive. I then mixed some finely-pulverized charcoal with some diluted sugar syrup, and fed it to these bees. As the charcoal is insoluble and indigestible, of course it cannot and does not pass through the walls of the stomach into the blood, and so cannot ever pass to the glands. Even if it were in the blood, it could not enter into secretion, as it is in non-osmotic, and so could not appear in the saliva. Yet this charcoal appears in the food given to the larvæ. This food then cannot be a secretion, but must be the chyle or digested food of the nurse-bees.

That the strongly muscular structure of the alimentary tract, may draw the stomach-mouth up to the œsophagus, and thus draw the valve up so that its valuvlar nature is destroyed, is the view of Schonfeld, and is, I believe, correct. This is then a sort of adjustable valve, and may prevent regurgitation or not, as the function of the bees require. Thus we have in the stomach-mouth, as well as in the tongue of the honey-bee, examples of differentiation which are not surpassed anywhere in the organic world. A. J. COOK.

Prof. Cook's essay was discussed as follows:

S. Corneil—Have you ever examined wax to see the amount of pollen which it contained?

Prof. Cook—Yes, I know it contains pollen.

S. Corneil—You say that you are wintering bees on wooden-combs, as an experiment, to prove that they can winter without pollen. You know that combs have been dipped in wax, and wax contains pollen, hence your experiment will be imperfect, even though the amount of pollen be infinitesimal.

Prof. Cook—That is true. I tell you that we must be very careful, I see.

S. Corneil—I have had the eggs of the bee-moth's larvæ hatch in comb foundation, and bore tunnels between the sheets. There must be pollen in the wax, or this could never have happened.

C. P. Dadant—I think that there is little pollen wax. It is true that there is a residne every time wax is melted, but this residue is usually wax reduced to this pecular condition by the action of the hot water.

S. Corneil—This residue comes about as the action of hard water. When soft water is used, such trouble is avoided.

C. P. Dadant—We have rendered wax with steam, yet we had the same trouble.

R. McKnight asked how long a bee could subsist upon its sacful of honey.

Prof. Cook said that circumstances were so varied that it would be impossible to give a definite answer.

C. P. Dadant objected to the use of the term "digested nectar," or "partially-digested nectar," as applied to honey, because the honey is not really assimilated.

Prof Cook maintained, and was supported by S. Corneil, that honey is in *reality* "digested nectar;" that it is in a condition to be assimilated without undergoing any change, or at least but slight change, in the true stomach. There are foods that are really "digested," or nearly so, that is, they are ready for assimilation. Honey is one of the foods; it is largely absorbed directly from the stomach into the system.

Dr. Harvey said that, in this matter, people were confounding *digestion* with *assimilation*. There is primary digestion, and secondary digestion. The first is the *preparation* of the food for assimilation, and the second is *assimilation*. The process that nectar undergoes is that of primary digestion,

R. McKnight said that, if honey undergoes any further change in the true stomach, then it is "partially-digested nectar;" if it undergoes *no* change, then it is "digested nectar." He looked upon the whole matter as unimportant, and one that would soon be forgotten.

It was voted that, inasmuch as it has come to the knowledge of the Association that a member sold a crate of honey to a hotel in Brantford, during the meeting, the outside sections of which were good white honey, and the inner sections inferior, dark, buckwheat honey, the whole being sold as a prime article, the Association desires to place on record its condemnation of all such transactions as essentially dishonest, and calculated to bring bee-keeping into disrepute.

REPORT OF THE SECRETARY.

The following is the report of the Secretary, which was referred to the committee mentioned on page 817 :

Upon referring to the By-Laws, it will be noticed amongst the duties of the Secretary, is that of making a report. I must confess that this is a very difficult task. No time or money has been spared to make the present meeting a success.

It is the pleasant duty of your Secretary to report that the International American Bee-Association is very much indebted to the Brant Bee-Keepers' Association for the kind assistance it has given in making arrangements for the convention, and to the majority of the bee-papers for the gratuitous notices, etc., given by them of the meetings, and the co-operation of a number of individuals in a quiet way. Whilst it is pleasant to reflect upon this, it is also the duty of your Secretary to report that the interest in the Association is not nearly general enough throughout America. What a vast amount of work could be done by co-operation !

It is desirable to reach the great mass of bee-keepers in a more direct and certain way than through your Secretary, and the State and Provincial associations should labor more in union with the International, and this could doubtless be done by the secretaries of each.

Whenever such a local association meets, they should appoint two, or even one delegate, to the annual convention of the International, and this delegate should feel it his duty to reach and urge every bee-keeper in the province at all likely to attend the gathering of the International.

It is not necessary to point out the much greater interest which could be awakened in this way, nor the increased usefulness of our association, to say nothing of the financial grain.

As Secretary, and knowing the sentiments of some of its members, let me urge that the funds of the Association be husbanded as far as practicable, and spent only for absolute necessities, looking forward to a grand International Convention, at which nations will be represented, at no distant date.

Your obedient servant,
R. F. HOLTERMANN.

The question-drawer was taken up, and a number of questions answered by Dr. Mason.

It was decided that R. McKnight be the Canadian representative, and Dr. A. B. Mason the United States representative of the honey and bee interests at the coming International Fair of 1892.

On motion, a vote of thanks was given to the President, Secretary and Treasurer of the International Association, also to the President and Secretary of the Ontario Association.

It was decided that the Association pay $25 to Secretary Holtermann for services as Secretary.

Mr. Holtermann said that he would donate $15 to the Association, as $10 would cover his expenses.

The convention then closed with the Doxology, followed by prayer, by Mr. J. C. Calvert.

Peace and Good-Will to Men.

I heard the bells on Christmas Day
Their old familiar carols play,
And wild and sweet
The words repeat
Of peace on earth, good-will to men!

And thought how, as the day had come,
The belfries of all Christendom
Had rolled along
The unbroken song
Of peace on earth, good-will to men!

Till ringing, singing on its way,
The world revolved from night to day,
A voice, a chime,
A chant sublime,
Of peace on earth, good-will to men!

But in despair I bowed my head—
"There is no peace on earth," I said;
"For hate is strong,
And mocks the song
Of peace on earth, good-will to men."

Then pealed the bells more loud and deep,
"God is not dead, nor doth he sleep!
The wrong shall fail,
The right prevail,
With peace on earth, good-will to men!"
—HENRY W. LONGFELLOW.

Our Premium-List Supplement describes many articles of great merit, and that are useful in every family. We have carefully selected them to offer as premiums for getting up clubs for our JOURNALS. We do this to *induce* our friends to devote a few hours of labor for us. Our JOURNALS are first-class in their lines, and are needed everywhere. We do not want any one's labor without remuneration, and the articles offered will pay for the labor of getting up clubs, and thus the arrangement will prove to be for our mutual advantage.

A New Premium.

The National Purchasing Agency of this city issues a Membership Ticket good for the year 1890, for the sum of one dollar. This Ticket is not transferable, and entitles the holder to all discounts that the Agency can secure on goods that may be ordered, and they are in a position to obtain more or less discount on every order received.

By a special arrangement, we can offer a MEMBERSHIP Ticket for 1890 to any one sending us two new subscribers for the AMERICAN BEE JOURNAL or ILLUSTRATED HOME JOURNAL, for one year, with $2.00.

Honey and Beeswax Market.

DETROIT.

HONEY.—Demand is fair for comb at 13@15c. per lb. There is more dark honey than light. Extracted, 8@9c.
BEESWAX.—24@25c.
Nov. 11. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—Receipts of comb are averaging about as they usually do with a fair crop. Prices rule at 13@14c. for choice to fancy 1-lbs., which comprise the bulk of the receipts, very little in sections averaging 1½@2 lbs., and sells at 10@12c½.; dark, 8@10c Extracted, 6@8c.
BEESWAX.—25c. R. A. BURNETT.
Nov. 8. 161 South Water St.

KANSAS CITY.

HONEY.—Fancy white 1-lbs., 14c.; good, 13c.; dark 11c.; white 2-lbs., 13c. Extracted, white, 7c.; dark, 6c Demand good.
Nov. 11. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—1-lb. comb, 13@15c. Extracted, 6@7c.
BEESWAX.—20@25c.
Dec. 9. J. M. CLARK COM. CO., 1421 15th St.

MILWAUKEE.

HONEY.—Choice white 1-lbs., 14@15c.; 2nd grade white 1-lbs., 13@14c.; old dark 1-lbs., 10c.; new, 10@11c. Extracted, white, in barrels and kegs, 7@8c.; in tins and pails, 8@8½c.; dark, in barrels, 6@6½c.; in kegs, 6@7c. Demand steady.
BEESWAX.—22@23c.
Nov. 11. A. V. BISHOP, 142 W. Water St.

CHICAGO.

HONEY.—Demand for white clover 1-lbs. is improving, but price depends upon size and style of package, condition and appearance when received, ranging from 12@13½c.; basswood, 11@11½c.; buckwheat, 8@10c. Extracted, 6½@7½c., depending upon style and size of package.
BEESWAX.—27@28c.
Nov. 9. S. T. FISH & CO., 189 S. Water St.

NEW YORK.

HONEY.—Market is inactive, and prices declining. Fancy white 1-lbs. 13@15c., 2-lbs. 12c. Off grade 1-lbs. 11@12c., 2-lbs. 10@11c. Buckwheat 1-lbs., 10@11c.; 2-lbs., 9c. Extracted in good demand. Basswood, 7½c.; California, 7½c.; orange bloom, 8@8½c.; buckwheat 6 cents; Southern, 70@75c. per gallon.
HILDRETH BROS. & SEGELKEN,
Dec. 9. 28 & 30 W. Broadway, near Duane St.

BOSTON.

HONEY.—It is selling a little slow. Fancy white clover 1-lbs., 16@17c.; fair to good, 15@16c.; 2-lbs., 15@16c.
BEESWAX.—24c.
Dec. 9. BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI.

HONEY.—A large amount of Comb on the market at 14@16c for best white. Extracted at 5@8c.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Nov. 22. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—Selling slowly, especially extracted, on account of mild weather. White 1-lbs., 13@14c.; dark 10@12c.; white 2-lbs. 12@13c.; dark, 10@12c. Extracted, white, 7@8c.; dark, 5@6c.
BEESWAX.—22c.
Nov. 22. CLEMONS, CLOON & CO., cor 4th & Walnut.

A Special Club Rate.

A Magazine of the choice literary character which the ILLUSTRATED HOME JOURNAL sustains, will add many pleasures to any "family circle." Its beautiful illustrations and interesting reading-matter will make it heartily welcomed at every "fireside" in the land.

We desire that every one of our readers should secure its regular visits during the year 1890, and in order to induce them to do so, we will make this tempting offer:

We will Club the AMERICAN BEE JOURNAL and the ILLUSTRATED HOME JOURNAL, and mail both periodicals during the whole year 1890 for **$1.50.** if the order is received at this office before January 1, 1890.

Such a *remarkably low* club rate as the above, should induce every reader of the BEE JOURNAL to accept it without a moment's delay.

Index to Vol. XXV.

☞ The Authors' names are given just before the pages indicated, except what was written by the Editor, discussions, Queries, or matter selected from other periodicals.

Absconding swarms.....Doolittle, 409—Dibbern, 472
Adulterated honey, 35, 36.....Haven, 195
Advice for bee-keepers.....Hicks, 553
After-swarms.....Doolittle, 88
Against nature.....627
Agricultural colleges.....645
Albinoism as applied to bees.....Robinson, 586, 762.....Cook, 762
Alfalfa honey, 132.... Brundage, 92—Ranchfuss, 572
Alighting-boards.....Greiner, 452
Alimentary apparatus of bees.....Cook, 831
Amateur bee-keeper's lament (poem).. Graham, 758
Amazon valley.....716
Amus Periwinkle's queen.....Socks, 728
Anatomy and physiology of bees, 725—Aspinwall, 164
Ancient and modern apiculture .....Larrahee, 76
Ants in the apiary, 339, 708.....Downing, 214—Graves, 25—Lyman.....299
Apiary of Walter Harmer.....276
Apiary on a public highway.....Wortmann, 685
Apiary work.....Shafnit, 684—Harrison, 746
Apicultural advancement.....Staley, 616
Apicultural patents.....Taylor, 8
Apis dorsata.....Holtermann, 323—Mnlvany, 343
April tears (poem).....232
Are better bees than Italians required?.....597
Arkadelphia bee-lawsuit ....19, 403, 406, 421, 435, 441—Secor, 456.....McKeon, 520
Attacked by bees.....Greiner, 584
Australian apiary.....405

Bait for bees.....Dowell, 156
Basswood honey ....Mason, 103, 148—McKnight, 148—Doolittle, 232—Krumm, 247—Kruschke.. 249
Basswood trees.....Millard, 314
Bears and honey.....292
Bee and honey shows ..324, 755—Hubbard, 132—Mason.....755
Bee-candy.....175, 275, 827—Harrisoo, 185—Cook, 217
Bee-cellars ..... Becktell, 108—Ellingwood, 732
Bee-diarrhea.....Webb, 122
Bee escapes, Greiner, 727—Hawk, 739—Reese, 739, Dibbern, 797—Ewing, 764.....Coverdale, 764, 801
Bee-hawk..... Leers, 28
Bee-house.....123, 614—Brader, 28—Spradlin, 531
"Bee-Keepers' Magazine".....131, 179
Bee-Keepers' Union ..35, 307, 459, 483, 643, 683—Hilton, 7—Ashby, 27—Church, 51—Nelson, 61—Larrabee, 76—Jardine, 427—Pond, 435, 583—Secor, 456—Thomas, 500—Baldwin, 571—Dibbern, 612, Coombs, 699—Newman, 801, Mason, 756.....Heddon, 811
BEE-KEEPING IN—
Alabama.....Heaton, 11—Toney, 331
Arkansas.....King, 93
Austria.....Schroeter, 60
California.....Wier, 711
Colorado.....Aikin, 93
Cuba.....Poppleton, 677
England, 627.....Neve, 330
Florida.....Hart, 476—Craycraft, 778
Germany.....Roese, 508, 555, 598—Mulvany, 664
Iowa.....Cronkleton, 748
Kansas.....Hanson, 445—Gebring, 730
Maine.....Latham, 10—Abbott, 60
Minnesota.....Rosebrock, 684
Missouri.....Liston, 404—Collier, 588
Nebraska .....Lyman, 93—Mott, 425—Jardine, 427
Ohio.....Reed, 476
Pennsylvania.....Spitler, 28
Scotland.....660
Texas..Aten, 134, 360—Davidson, 300—Lamkin, 316.....Douglass, 604
Vermont.....Cushman, 360
Wisconsin.....Hodge, 329—Lind, 745
Bee-keeping—its importance and development—Bull.....776
Bee-keeping with other pursuits....Pringle, 72—Rouse, 102—Holtermann, 138—Gross, 186—Secor, 231—Alton, 248—Cook, 340 .....Taylor, 820
Bee-papers.....Tibbetts, 804
Bees and agriculture.....Cook, 84
Bees and chickens.....580
Bees and fruit..Hand, 201—Styan, 292—Gehring, 328.....Robinson, 632
Bees and grapes, 35, 291, 675.....Hoey, 651
Bees and vegetables.....243
Bees are swarming over (poem).....228
Bees dying.....Young, 251
Bees in a boxed fence-post.....Pratt, 653
Bees in box hives.....Hawkins, 715
Bees in cities.....Hand, 200
Bee-smokers and fuel, 230—Miller, 39—Seeley, 268—Bingham, 376.....Flory, 539
Bees near a highway.....Harrison, 567
Bees on scales.....Dibbern, 635
Bees ready for the harvest.....Robertson, 298
Bees roaring in winter.....Anderson, 27
Bee-stings, 5, 358—Link, 124—Gross, 187—Lockhart, 41—Gehring, 327.....Hills, 727
Bee-supplies.....Costellow, 249—Roese, 633
Beeswax, 227.....Harrison, 132, 661—Schaeffle, 633
Bee-war.....595
Beginners in bee-keeping, 234 .....Livingston, 152
Bells of the ages (poem).....Harte, 508
Beverage containing honey.....341
BIOGRAPHY OF—
T. S. Bull.....373
Prof. A. J. Cook.....5
Francis Huber.....437
W. Z Hutchinson.....229
Rev. Stephen Reese.....212
Amos I. Root.....117
Eugene Secor.....150
Big stock-farms and stakes.....716
Bill Nye on bees, 547.....551
Blackberry blossoms and bees (poem) .....Peck, 564
Black honey.....Barclay, 697
Blessed are the poor (poem).....Secor, 501
Blessings of a poor season.....Hilton, 7
Bloated bumble-bees (poem).....53
Booming the bee-business.....Black, 100—Iiams, 100
Boon of sleep (poem).....Andrews, 362
Bottles for Honey.....831
Boy and the bee (poem).....York, 200
Box-elder for hedges.....Tyrrel, 295
Brand the bees.....579
Breathing of bees.....Aspinwall, 84
Breeding for honey-gathering qualities...Coverdale.....299
Brood-rearing.....Doolittle, 325
Buildings for fair exhibits.....Mason, 223
Burying bees.....Broadhead, 43
Busy as a bee.....579
Buttercups (poem).....O'Neill, 376
Buying bees.....Stockwell, 424

California bee-history.....Essley, 761
California honey crop, 123, 131, 628, 483—Schacht & Lemcke, 147—McFatridge, 476 .....Brown, 571
Canadian bee-men.....Holtermann, 139
"Canadian Honey-Producer".....755
Canadian news.....531
Candy for queen-cages..Morrison, 535—Christie, 652
Candy for winter feeding.....827
Carbuncles.....Duncan, 684
Care of honey, 596.....Duff, 582—Dibbern, 635
Caring for several apiaries.....Cushman, 361
Carniolan bees, 45, 140—Andrews & Lockhart, 41—Harrington, 93—Morrison, 93—Hammerschmidt, 603—Lighty, 650—Hawn, 652—Pratt, 661—Johnson, 695—Turner, 699.....Quigley, 742
"Carniolan" pronounced.....Pratt, 731
Cell-cups for queen-rearing.....Reese, 714
Cellar vs. out-door wintering of bees..McKnight, 817
Cellar wintering of bees, 102 ...Kirkpatrick, 89—Duncan, 108—Lord, 185.....Hodge, 268
Census of the United States.....Porter, 388
Chance for an American girl.....309
Characteristics of bees transmitted by the queen.....325
Chilblains.....796
Chloroforming bees.....Graves, 428
Christmas.....811
Cider stores and bee-diarrhea .....Funk, 61
Cleaning hives and sections, 6, 21, 83—Harrison, 132—Handel, 140—Hershiser, 313—Stockwell, 379
Climate and nectar.....Vought, 404
Clipping the queen's wing, 469, 580.....Doolittle, 553
Clover seed.....Ahlborn, 524
Coal palace.....613
Coffee-bean honey.....Downing, 214
Colors, odors and bees..Tyrrel, 25—Demaree, 54—Latham.....454
Comb honey, 581.. Dougherty, 108—Abbott, 170, 184—Doolittle, 183, 504—King, 283—Secor, 544—Coverdale, 744.....Keeney, 761
Comb honey vs. extracted, 182, 799.....Doolittle, 570
Combs of diseased colonies.....Barber, 330
Combs or foundation?.....797
Coming bee.....Bunch, 763
Coming hive.....Pond, 377, 457—Robbins, 423
Commend us to the Arab.....189
Cooling cellars with ice.....Pearson, 172
Constitution and by-laws.....Miller, 151, 554—Mason, 214.....Holtermann, 216
Consumption of winter stores.....264
Contraction of hives.....Hovis, 216—Bunch, 9—Demaree.....328
Contradictory reports injurious to bee-keeping.. 829
CONVENTIONS OF BEE-KEEPERS...Mason, 520—Hutchinson.....596
Agency (Mo.).....Graham, 116
Brant (Ont.).....Holtermann, 41, 267
Capital (Ills.).....Yocom, 644
Central Michigan.....Barnes, 310
Colorado.....Clark, 122
Erie County (N. Y.).....Hershiser, 376, 410
Fayette County (Ohio).....Morris, 297
Haldimand (Ont.).....Campbell, 218, 376
Indiana.....Hubbard, 104
Ionia County (Mich.).....Smith, 298
International, 7, 773—Root, 660—Mason, 660, 739—Cook, 660—Newman, 660—Holtermann, 707, 739, 756.....Hutchinson, 813, 829
Maine.....Abbott, 73
Michigan.....Hutchinson, 7, 22
Minnesota.....Urie, 195
Missouri.....Rouse, 775
Nashua (Iowa).....Rouse, 102
Nebraska.....Heater, 154
Newaygo County (Mich.).....Hilton, 152
N. E. Ohio, N. Pa., and S. W. New York..Coon, 264
N. W. Ills. and S. W. Wis.....Fuller, 107
Northwestern (Chicago) 659—Hutchinson, 679, 694
Ontario.....Holtermann, 70, 84
Susquehanna County (Pa.).....Seeley, 330, 636
Texas.....Hunter, 342
Union (Ills.).....Hambaugh, 798
Vermont.....Larrahee, 75
Western Maine.....Fuller, 378
Will County (Ills.).....Kettering, 411
Wisconsin.....131
Costly neglect.....205
Cough and cold cures, 36, 99.....Mason, 324
Coverings for brood-chambers.....757
Cross bees.....Harrison, 568
Crossing races of bees, 23.....Andrews, 12
Cyprians.....Daniher, 699
Dadant's foundation factory.....567
Dandelions (poem).....Cavazza, 492
Dark honey.....Herron, 44
Date-palm and bees.....243
De-queening colonies.....Greiner, 220
Detroit exposition.....389
Difference in yields of honey.....800
Digested nectar...Rau, 199—Pond, 440—McKinney, 486, 616, 710—Cook, 523, 611, 647—Aspinwall, 649—Dunlap, 698—Greiner, 699—Socks, 728—Purvis, 731.....Rose, 758
DEATH NOTICES—
Boynton, Mrs. G. W.....771
Chaddock, Mrs. Mahala B.....739
Decker, John.....634
Furman, W. H.....19
Gavin, Thos.....307
Goodrich, Mrs. A. S.....51
Hamet, Mons. H.....739, 796
Hetherington, John Edwin.....259
Jordan, E. C.....339, 483
Ledermann, Fr.....115
Manum, Mrs. A. E.....4
McCormick, Rosann.....234
Mndgett, Raymond L.....44
Phelps, Dr. G. W.....3
Ratt, Wm.....83
Raynor, Rev. Geo.....339
Shane, Wm. H.....195
Smith, C. H.....179
Steiner, S.....596
Vandervort, Mrs. J.....467
Diphtheria and honey.....52
Disbonorable transaction.....579
Distance bees travel..Webb, 122—Barnhart, 137—Doolittle, 519.....Dibbern, 601
Distance between apiaries.....230
Dividing colonies, 74...Hicks, 186—Hewes, 247—Henry, 359—Tucker, 395—Dibbern, 440—Miller.....459
Do bees hear?—52, 90.....Woodward, 39
Dodder—a parasite .....Secor, 585
Dog and the bees.....180
Dollar queens.....Doolittle, 391
Don't be like Moses (poem).....563
Doolittle's report for 1889.....728
Doom of the Conemaugh (poem).....Lane, 390
Double-walled hives.....Wyss, 60
Dragging out brood, 484 ..Doolittle, 323—Stokesberry, 348.....Rebholz, 475
Drone and queen traps..Edsall, 707—Alley, 707—Woodward.....747
Drone-comb, 37, 165, 245, 501.....Kinsel, 523
Drone-laying queens.....Aten, 360
Drones, 165, 630, 800..Doolittle, 260—Turner, 268—Henry, 283—Graves, 312—Stachelhausen, 377.....Lyman, 380
Du beez maik honey?.....Socks, 728
Dummies for hives.....Rebholz, 475
Dwindling and dying of bees.....Bence, 348
Dying of bees after stinging.....Doolittle 276
Dzierzon.....467

Early breeding..... ...Woodward, 28—Morris, 92
Early-reared queen .....Haskin, 316
Early swarming.....Marsh, 140—Young, 316—Hodge, 329—Capser, 331.....Peck, 348
Earn your honors (poem).....550
Easter-tide (poem).....McConoughey, 244
Eating brood.....Roese, 428
Educated bees.....580
Electric notes.....548
Emblem flower (poem).....Kennedy, 645
Empty combs.....Holtermann, 535
Encouraging words .....Helena, 420
Enemies of bees, 307.....Aten, 360
English bee and honey show, 489.....Pratt, 517
Entomologist club 579
Entrance-regulator ..483
Essays at conventions..Miller, 151—Holtermann, 216.....Hutchinson, 772
Evaporating nectar.....Doolittle, 137
Evolution and parthenogenesis ....Latham, 168, 282.....Miller, 198, 315
Exhibits of bees and honey-plants, 227 ....Clemmons.....45
Experience as a teacher.....Weckesser, 189
Experience with bees..Brooks, 12—Shafnit, 44—Livingston, 54—Auringer, 252—Richards, 297—Syphrit, 298—Johnson, 362—House, 423—Ritter, 460.....Sanford, 583
Experiments in bee-keeping, 355 .....Bunch, 9—Heidenescher, 27—Erkel, 87.....Secor, 280
Extracted honey, 9, 243, 681.....Dow, 45—Gould, 153.....Wilcox, 500
Extracting .....Harris, 20—Edsall, 651
Extractors, 182..Gould, 153—Abbott, 185—Stockwell, 424—Poppleton, 677 .....Koehler, 742

Facing hives.....Coverdale, 107
Fair exhibits, 595, 611, 612, 643, 644...Abbott, 631—Bittenbender, 652—Latham, 677—Pierce, 699—Stolley, 715.....Russell, 777
Fall honey..Harrison, 568—Dibbern, 611—Coppin, 635
Fall work ..... Doolittle, 711—Harrison, 631
Fastening foundation in sections, 235.....Manchester.....326
Fatal quarrel about bees.....580
Feeders and robbing .....Harrison, 186
Feeding bees, 73, 579 ...Axtell, 10—Bradish, 44—Graves, 120—Harrison, 266, 568—Hershiser, 312—Demaree, 329—Cushman, 361—Bunch, 378—Roese, 380.....Wilkins, 779
Feeding bees for winter..Robbins, 20—Rnese, 43—Ogden, 109 ..... Harrison, 185
Fertilization of fruit blossoms by bees...Holtermann, 138.....Clark, 200
Fight between insects 195
Fire.....4, 611, 659
Flight of bees.....Rogers, 55
Florida honey.....Craycraft, 636
Flowers and bees .....Chaddock, 179—poem, 548
Foul brood, 41, 371, 500, 757..Baldwin, 134—Barnhart, 136—Wendelken, 139—Graden, 166—Leach, 187—Manchester, 326—Shimer, 396—Blades, 460—Tefft, 569—Sword, 571—Davidson, 636—Parcher, 651.....Blanken, 731
Foundation.....Hayworth, 92—Craycraft, 779
Foresight 453
Frames ....Ferree, 620—Woodward, 684
Freaks of bees....Ault, 40—Haskin, 363—Bunch, 763
Freight rates on bees.....Grimm, 694
French bee-questions.....355
From two stand-points.....614
Frosted grain for seed .....Green, 147
Frost on the punkin (poem) .....Riley, 294
Fruit-bloom.....Axtell, 371

Full crop—percentages..... 795
Fumigating comb honey, 454...—Miller, 500—Van Deusen..... 587
Fumigating combs.....Miller, 52
Gathering honey and pollen..Cook, 217—Dadant, 264—Pond, 266.....Coppin, 695
Gathering the clan (poem).....Secor, 150
German bee-keeping laws—Roese, 598—Mulvany, 664
Getting bees out of supers, 682.....Burtch, 636—Ashby, 664, 763—Coverdale, 697.....Greiner, 727
Getting ready for the harvest..... 115
Getting the best results..... 799
Glands of bees.....Cook, 375
Glassing sections.....Le Roy, 587
Glass in the surplus apartment..... 213
Golden-rod as the national flower, 388, 500, (poem) 533, 579—Hersbiser, 392, 396—Chapman, 435—.....Chaddock (poem) 581
Good's queen-cage..... 547
Grading honey.....Smith, 57—Dibbern, 635
Grafting-wax..... 291
Graham flower.....Latham, 219
Granulation of honey.....Harris, 20—Huff, 20—Miller, 86—Bixler, 171.....Howell, 537
Ground corn and oats for pollen.....Barrows, 252
Healthfulness of bee-keeping.....Whitney, 27—Davis, 475.....Root, 830
Heat and bees.....Norton, 452—Wiele, 487
Heat-retaining hive.....Corneil, 819
Heredity in bees.....Grimshaw, 759
Hints to beginners..... 798
Hive-covers..... 213
Hives....Whitney, 43—Pond, 250—Tefft, 346, 473, 568—Woodward, 684.....Corneil, 819
Hives and bees (poem).....Buck, 38
Hive-spaces.....Tinker, 155
Hive-stands.....Cronkleton, 395
Hiving bees on Sunday..... 195
Hiving swarms 235, 643.....Kirkpatrick, 89—Walker, 135—Murray, 323—Cushman, 361—Knight, 507—Hood, 521—Doolittle, 553—Sherman, 620—Gebring, 730—Woolfolk, 747—.....Sherman, 829
Hoarseness..... 796
Honey Almanac, 629, 675, 692, 708.....Dibbern & Son, 779.....Roese, 803
Honey as a staple article, 629.....Kruschke, 629
Honey as food for bees.....Harrison, 185
Honey-bee (poem).....Graham, 746
Honey-boards, 8, 682.....Bunch, 9—Heddon, 24, 600—Tinker, 74—Demaree, 329—Dadant, 394—Howell, 603.....Barrows, 695
Honey-colic.....Barb, 172—Dadant, 172—Ridout, 203
Honey-comb 50 years old..... 292
Honey crop of 1889, 483.....Dibbern, 472
Honey-dew..Cronkleton, 394—Richardson, 427—Greiner, 584.....Smith, 603
Honey from cappings, 149.....Coffin, 220
Honey in cooking.....Langdon, 522
Honey in recipes..... 340
Honey instead of sugar.....Stilson, 631
Honey-instinct.....Harrison, 52
Honey-jumbles and lemonade..... 755
Honey-kegs..... 53
Honey-plants for bees, 123—Russell, 123—Hawk, 710
Honey-labels.....Bixler, 171
Honey Producers' Exchange.....Elwood, 211
Honey-production.....Sleeper, 538
Honey-shows, 491.....McKnight, 504
Honey—variations in color of..... 827
Honey-vinegar.....Brown, 60
Honey-weather..... 324
Hope on (poem).....Secor, 355
Horticulture and bee-keeping.....Abbott, 169
House-apiaries.....Davis, 138
How bees carry honey.....Cunningham, 364
How far bees fly.....Watkins, 12
How things have changed.....—Iley, 579
Hybridizing bees.....Gardiner, 60
"Ideal" hive.....Tefft, 346, 473, 568
Ignorance about bees and honey.....100, 499, 563
Imported Canadian animals..... 547
Imported queens..... 499
In-breeding.....Secor, 101
In clover (poem).....Rexford, 458
Increase, 69, 85, 378, 438....Warner, 67—Kirkpatrick, 89—Abbott, 185—Robertson, 298—Lighty, 362.....Miller, 459
Increase of bee-culture.....Harrison, 707
Insects..... 116
Insomnia cure..... 484
Introducing queens, 547, 709, 799.....Andre, 42, Doolittle, 261, 439—Strong, 438.....Demaree, 505
Inventions and experiments..... 534
Italian and black bees, 798.....Gross, 187
Italian bees, 565.....Barker, 121—Hicks, 393
Italianizing, 410, 550.....Hicks, 458
Jagged-winged bees.....Doolittle, 519
January (poem).....Longfellow, 36
Johnston (Pa.) flood..... 371
Judging exhibits at fairs..... 596
June day (poem)..... 405
June in England..... 452
July day (poem).....Boker, 454
Ka-ching! its spring (poem)..... 217
Keeping a record of colonies.....Cushman, 361
Keeping bees for pleasure and profit.....Pringle 72
Keeping bees in a house or shed..... 85
Keeping bees on shares.....198, 278, 340
Keeping bees warm.....Abbott, 171
Keeping the queen in a cage after having been mailed..... 693
Killing off drones.....Sheridan, 364
Kind of hive..... 213
King-birds and bees.....Newman, 539
Knowing all about bees.....Boerstler, 652
Langstroth.....35, 451, 467, 691
Langstroth's book revised, Demaree, 328—Dubini, 796
Language of clover (poem).....Secor, 828
Large vs. small hives, 307, Dadant, 311, 393, 488—Hutchinson, 342, 425, 506.....Hawkins, 572
Larval food.....Stachelhausen, 119
Laying in queen-cells..... 800
Laying-queens and swarms.....Doolittle, 456
Laying several eggs in one cell.....Newman, 599
Laying workers.....Beehly, 42, 410—Avery, 93—Pierce, 308—Aten, 360—Harrison, 363—Lyman, 394—Knight, 507—Hanbury, 583—Vannoy, 598
Lazy bees.....Harrison, 486
Lectures on bees.....Richie, 279—Jones, 387
Legends and superstitions about bees..... 421
Legislation for bee-keepers..... 389
Length of bee-life.....Doolittle 359
Lessons from 1888.....Hilton, 7—Kanzler, 519
Life's bubbles (poem).....Secor, 713
Light-colored bees.....Doolittle, 519
Lindens and the bees (poem)..... Hill, 709
Little colony in a small hive.....Clark, 539
Lively work.....Councilman, 456
Lizzie Cotton, 132, 211.....Stockwell, 424
Locating an apiary.....Harrison, 23
Locusts.....Cook, 358
Looking for their tormentor..... 531
Loose expressions..... 675
Loss of weight in winter.....Barrows, 268
Love and honey (poem)..... 87
Lynch law.....Jordan, 179
Mailing bees by the pound, 676....Doolittle, 585, 729—Pratt, 650—Robinson, 667.....Bingham, 758
Mailing queens and bees, 484, 646. Dadant & Son, 715—Macpherson, 820.....Robinson, 667, 828
Mailing queen-bees to foreign countries..... 827
Making comb foundation.....Erkel, 308
Managing swarms.....Rose, 758
Maple sugar and sap for bees.....Seeley, 219—.....Hershiser, 328
Marketing honey, 19, 73, 681, 682 724....Pringle, 72—Larrabee, 76—Cushman, 361—Heddon, 472—Hilton, 474, 506—Richards, 508—Duncan, 538—Blodget, 587—Pratt, 597—Dibbern, 634, 743—Emery, 643—Theilmann, 713—Newman, 813
Marking bees..... 692
Marking crates of honey.....Dibbern, 472
Mason's (Pres.) annual address..... 815
Mating of queens, 99.....Pratt, 537
May (poem)..... 310
Measuring comb surface.....Doolittle, 470
Migratory bee-keeping.....Craycraft, 678, 715
Mineral wax.....Maley, 259—Swaner, 330
Misrepresentation about bees and honey, 4, 339, 403, 419, 420, 436, 467, 468, 500, 547, 595, 614, 627, 691, 708, Wentworth, 4—Styer, 43—Baldwin, 99—Miller, 163—Hager, 445—Root, 516—Gerrard, 516.....Armstrong, 548
Mistaken bee (poem).....Saxe, 646
Mistakes in bee-keeping.....Duvall, 276
Moisture and ventilation.....Holtermann, 56
Molasses for bees..... Peck, 228
Moldy combs..... Blades, 45
Month of April (poem).....Smith, 267
Moth-worms, 74.....Doolittle, 504—Mintbom, 507
Mouldy and old combs..... 406
Moving bees, 422, 741....Crumrine, 204—Lossing, 297—Gebring, 328—Cushman, 362—Erkel, 474.....Phenicie, 715
Moving bees to secure honey..... 422
MUSIC—
Busy, Buzzing Bees..... 613
Heavenly Echoes..... 502
Maggie, the Cows are in the Clover..... 196
My Baby's Face..... 532
Spring-time Joys..... 773
Strew Flowers above the Noble Dead..... 356
Must the extractor go?..... 20
My sweet-heart (poem).....Secor, 279
National Centennial..... 292
National flower, 388, 467, 612, 630..Hershiser, 392, 396—Chapman, 435—Harrison, 548—Kennedy, 645—Barclay, 697.....Secor, 707
Nebraska apiary.....Young, 309
NEW BEE-BOOKS AND PAPERS.....Miller, 774
Banplane fur Bienen-wirtschaftliche Bauten, 661
Bee-Keepers' Text-Book..... 500
Doolittle on Queen-Rearing, 260, 372, 453, 483, 515
Langstroth's Book, Revised.....68, 327, 796
Management of the Apiary..... 451
National Bee-Keepers' Directory..... 515
Neuer Schweizer Bienenfreund..... 83
Simmins' Bee-Keeper's Pocket Companion..... 339
Western Apiarian and Queen-Breeders' Journal 613
Weygand's German Pamphlet..... 515
New honey.....Hodge, 363
New Year's greetings (poem)..... 4
No nectar in the flowers..... 6
Northern Michigan honey-resources.....Hilton, 441
Not a late spring.....Greeley, 51
Not the "National".....Alley, 795
Numerical strength of colonies.....Holtermann, 57
Odors, colors and, bees.....Chaddock, 90, 135, ...Handel, 140
Oil-cloths, 211.....Dadant, 394
Old bee-keeper.....Hellems, 412
Old colonies of bees, Barb, 316, 745—Rosenberger, 745
Old combs, 310, 646.....Ashby, 61
Old cook-books.....Langdon, 522
Old fogyism, 389.....Henderson, 779
Old queens.....Anderson, 428
Old sections..... 646
One hundred years ago (poem).....Dare, 440
One week's work.....Petty, 411
Only a clover blossom (poem).....York, 137
Open-side sections, 709.....Latham, 10
Oranges in Florida.....Hart, 267
Original home of the honey-bee..... 451
Out-apiaries.....Heddon, 538
Over-production.....Miller, 92
Over-stocking a locality, 683.....Hodge, 459
Packages for honey, 376..... Harrison, 487
Packing hives, 275..King, 12—Turner, 92—Stolley, 119—Holding, 203.....McPherson, 780
Painted bees.....Kennecott, 371—Wood, 424
Paper and its uses..... 164
Parasites, 452.....Parsons, 524
Paris exposition, 420, 468..... Pratt, 517—Kellen, 763
Paris green and bees, 387, 644...Smith, 331, 731—Cook, 355, 420.....Norton, 419
Passage-ways in hives.....Doolittle, 106
Paste for labels..... 243
PASTURAGE FOR BEES, 218.....Larrabee, 76
Alfalfa, 83. Harrison, 40—Moore, 661—Lashier, 780
Alsike clover, 683, 799..Harrison, 40—Glass, 88, —King, 219—Youngman, 248—Wood, 425—.....Wilcox, 515
Asters.....Harmer, 548—Conner, 588—Sherington, 603—Pratt, 684—Lyle, 699.....Krumm, 747
Basswood....Millard, 314—Doudna, 403—Theilmann, 419.....Myers, 460
Black incense cedar.....Watkins, 742
Box-elder.....Drew, 329
Buckwheat, 774...Jackson, 60—Schell, 61—Kinsel, 523—Rich, 685.....Smith, 731
Button-ball.....Shuck, 28
Caster-oil plant.....Bristline, 636
Chapman honey-plant.....Larrabee, 76, 107
Cleome.....Sapp, 115—Wilson, 115
Figwort.....Williams, 475
Fire-weed.....Harrison, 43
Golden-rod..Abbott, 564—Secor, 585—Dickson, 603—Scheuring, 633—Harris, 636—Edsall, 651—Ashby, 663, 763—Dow, 668—Leach, 668—Eaton, 668—Robbins 688—Henderson, 668, 779—Franklin, 668—Poppleton, 677—Dart, 678—Reynolds 684—Gressman, 684—Rich, 685—Latham, 694—Daniher, 699—Martin, 699—Faucett, 699—Hawk, 710—Reese, 715—Davenport, 716—Boerstler, 716, 780—Gehring, 730—Scott, 731—Smith, 731—Purvis, 731—Ellingwood, 732—Lind, 745—Fox, 747, Krumm, 747.....Bunch, 763
Hard-maple.....Demaree, 54
Hoarhound.....Brown, 60
Japanese buckwheat, 276.....Rouse, 43, Canady, 92.....Cook, 340
Heart's-ease.....Palmer, 60, Johnson, 539
Loose-strife.....Hanson, 524
Manzanitas.....Watkins, 220
Meadow sweet.....Sherington, 603
Melissa.....Watkins, 12
Milk-weed..... 566
Mustard..... 227
Prickly ash.....Johnson, 28
Primrose.....Pratt, 684
Rape..... 227
Red clover, 21, 725.....Harrison, 40—Wood, 425
Sedge-grass or carex.....Doudna, 316
Sweet clover, Harrison, 40, Swaner, 59, Dibbern, 371—Elliston, 389—Huff, 41, 563,—Williams, 475
White clover, 531.....King, 219—Boyles, 804
Wood-sage.....Hanson, 524 Fritts, 741
Patent hives.....Demaree, 328
Pat going into baze (poem)..... 247
Peace and good-will to men (poem)..Lonfellow, 833
Peach honey.....Harrison, 371
Pear-bloom honey.....Hershiser, 328
Peculiar queen and swarm, 107.....Mosely, 364
Perforated zinc..... 614
Personal gossip..... 549
Pittsburg exposition..... 549
Pasturage, 23—Axtell, 116—Rau, 139—Kruschke, 249
Plant-louse or grain aphis.....Haag, 420—Cook, 442
Poetry of bee-keeping.....Heddon, 296
Poisoned honey..... 644
Poisoning bees.....Bray, 748
Pollen in combs. 374.....Doolittle, 246—Latham, 281
Population of the United States..... 716
Porticoes on hives.....Boerstler, 588
Postal cards..... 692
"Pound" for bees..... 564
Premiums at Fairs.....Harrison, 281
Preparing bees for wintering, 515, 692..Doolittle, 57—Crouley, 72—Graves, 120—Bunch, 199—Tyrrel, 295—House, 585—Gebring, 712—Hicks, 729.....Dibbern, 743
Preserves (poem)..... 341
Prevention of swarming, 9, 378, 485, 681..... Larrabee, 76—Doolittle, 88—Secor, 326—Miller, 435—Wayman, 476—Miner, 652.....Doolittle, 775
Price of honey..Miller, 86—Dibbern, 472—Duncan, 538
Priority of location..Pettit, 70, 247—Walker, 251, Pond, 266—Proctor, 284.....Newman, 599
Professional bee-men.....Andrews, 51
Progress in bee-keeping.....Hutchinson, 67
Prolific queens..... 507
Propolis..... 37, 814
Prospects for 1889, 275.....Staley, 154—Barber, 202
Pruning fruit-trees..... 164
Puff-ball smoke.....Flory, 539
Putting bees in for winter, 676.....Holtermann, 57
Putting bees out of cellars.....Abbott, 170, Walker, 172.....Smith, 183
Queen-cages.....Pratt, 800
Queen-cell knife.....Lynn, 764
Queen-bee's wedding (poem).....Donoho, 725
Queen-cells, 630, Tinker, 26, Morrison, 535, Pratt, 537
Queen-excluders.....Tinker, 535, 682
Queen-excluding point..... 227
Queenless colonies....Kerr, 172—Hershiser, 313, Harrison, 536.....Norton, 588
Queen of the flowers (poem).....Briggs, 485
Queen-rearing....McGuire, 104—McIntyre, 246—Kincade, 252—Bunch, 378—Johnson, 471—Doolittle, 483, 663, 812—Tinker, 490—Morrison, 535—Coverdale, 619—Iams, 679—Alley, 744.....Keeney, 760
Queen-rearing chambers.....Tinker, 490
Queen-rearing hive..... 778
Queens and their improvement.....Vance, 459
Queer hive.....Dickinson, 310
Questions..... 291
Quilts over frames..... 213
Quotations on honey..... 139
Races of bees..... 73
Raising hives from bottom-boards..... 662
Reading bee-literature..Doolittle, 9—Jenkins, 55 Rosebrough..... 188
Rearing brood in December.....Sherington, 12
Rearing queens after swarming.....Doolittle, 599
Rearing queens for winter.....Anderson, 747
Red clover and bees..... 709
Removing sections.....Harrison, 487, 649

Return home —poem 119
Reversing combs ..Bunch, 9—Dorsey, 427, Tefft 569
Rheumatism and bee-keeping, 292,708..Whiting, 43
"Rich" bee-lawsuit, 4, 355, 579, 515, 531..Jardine, 571.....Robinson, 632
Richest legacy..... 548
Riding hobby-horses.....Root, 830
Rights of bee-keepers.....Stockwell, 458
Ripe-fruit beetle.....Fairbanks, 580
Ripening honey, 675.....Lee, 429
Robber-fly .....Twining, 57—Cooper, 699
Robbing..Reese, 58—Harrison, 186, 649—Hershiser, 313—Forgan, 619.....Mercer, 764
Robinson and Langstroth..... 180
Royal jelly..... 800
Runaway swarm.....Wescott, 93
Rye flour .....Sheets, 179—Latham, 219—Axtell 220

Salt for bees .....Hodge, 412
Schliesmayer's apiary..... 612
Schneider's Albinos (poem) .....Cullison, 327
Scientific squibs and blunders, 548.....Spitzka, 499
Season hints, Andre, 215—Harrison, 132—Skinner, 596
Season—1888.. Styer, 42—Demaree, 54—Bramlet, 56—Thornton, 91.....Rau, 199
Season—1889, Doolittle, 470—Park, 540—Weckesser, 587—Woodward, 632—Iiams, 67 —Johnson 695
Second swarms, 107.....Mason, 105
Secrets of bee-keeping, 259..... 323
Section-case, 251..... 684
Section-press .....Theilmann, 218
Sections..Dibbern, 440—Le Roy, 468—Whiting, 565.....Harbison, 634
Senior and junior..... 613
Separators, 133, 294, 390, 779 .....Gifford, 155—Hedden, 439.....Dibbern, 440, 601
September [poem].....Arnold, 296
September sunrise [poem].....Lyndon, 597
Set and sit..... 613
Several eggs in one cell.....Moesch, 580
Shading hives, 518, Tefft, 568—Vannoy, 569—Clark, 731
Shadows [poem].....Andrews, 275
Shaving the combs.....Abbott, 184
Shiny bees .....Phelps, 77
Shipping bees and queens, Harrison, 295—Lossing 297—Vogl, 451—Macpherson, 820—Bingham, 738
Shipping-crates and supers..... 831
Shipping honey .....Theilmann, 121—Roese, 252
Short-winged bees.....Coboon, 237
Size of cells in foundation 518
Size of sections..... 814
Small hives and system .....Taylor, 124, 308
Snow around hives..... 3
Snow-flakes 716
Soiled sections .....Dibbern, 601
Something new..... 467
Song for May—poem .....Rexford, 324
Sore eyes and erysipelas .....Kruschke, 249
Southern comb honey.....Israel, 291
Space between supers and hives 799
Spraying trees, 691, 800....Larrabee, 76—Brickey 779
Spring care of bees....Graden, 166—Smith, 183—Bunch, 199.....Dahl, 202
Spring dwindling..... 36
Spring management of bees.....Bingham, 22—Kirkpatrick, 89—Robertson, 298—Hershiser, 312
Spring work, 228.....Stockwell, 379
Starting an apiary .....Harrison, 296
Starved brood.....Wylie, 215
Starving bees.....Clark, 200—Bunch, 378—Tefft, 379
Statistics—bee-keeping, 83, 372, 547, 707, 827—Rusk, 291
Sterile queens .....Stoner, 92
Stimulative feeding, 267.....Abbott, 171
Stinging-bug .....Russell, 604
Stingless bees..... 387
Stores for winter, 101, 278...Beath, 168—Latham, 281
Storifying hives, 23.....Tinker, 75
Storm-warners.....Hodge, 412
Straight combs.....Robbins, 28—Reese, 58
Straw hives.....Hoke, 252
Straw mats.....Shuck, 615
Strong temptation —poem 168
Studying things that are made .....Hand, 200
Stung by bees..... 651
Sub-earth ventilators, Elwood, 99, 235—Betsinger, 156
Sublime thoughts..... 730
Successful bee-keeping .....Arnold, 540
Sugar for queen-cages .....Christie, 652
Sugar stores .....Stont, 237
Sulphur fumigation..... 662
Sulphur on buckwheat..... 774
Summer —poem.....Beattie, 265
Sunday swarming.....Harrison, 536
Supers with bee-spaces..... 422
Surplus bees and combs, 641.....Bechly, 42
Swarm in a dwelling-house.....Clemmons, 556
Swarming, 275, 531, 564 .....Vought, 100—Tinker, 100—Anderson, 166, 555—McKeon, 182—Pond, 182—Taylor, 182—Demaree, 182—Boerstler, 380—Doolittle, 391, 409—Coverdale, 426—Steddom, 428—Graves, 428—Harrison, 457, 536—House, 471—Benedict, 508—Hood, 521—Montague, 586—Auringer, 587 .....Rose, 758
Swarming-box.....Walker, 135
Swarming device.....Wilcox, 380
Swarm of golden bees —poem.....Shelley, 340
Swarm on a carriage.....Oldfield, 475
Swarming-out ...Rosser, 12—Reese, 59—Cronley, 72
Swarming without drones 831
Syrup for feeding bees.....Harrison, 186

Taxing bees .....Stark, 435—Olney, 620—Secor, 666
Temperature and bees..... 69
Temperature inside the brood-nest ....Doolittle, 325
Temperature in winter, 118....Holtermann, 56—Roese, 218 .....Cook, 678
Theories in bee-keeping .....Hubbard, 167
Thing that makes the buzz —poem.....Castle, 662
Third covers.....Muth, 629
Tid-bits about bees..... 340
Tiering-up .....Gile, 420
Tinker's system of management 25
Toads and bees..Strong, 102—Smith, 171—Hovis, 216—Walker, 250 .....Dadant, 264
Tobacco .....Hill, 540—Aldrich, 587—Woodward, 632
To-day and to-morrow —poem..... 432
To my setter "scout" —poem .....Selden, 296
Top-bars..... 81
To stay at home is best —poem.....Longfellow, 421
To the hills —poem.....Palliser, 453
Transferring bees, 308..Myers, 259—Miller, 279—Poindexter, 345.....Doolittle, 487
Trembling or nameless bee-disease, 484, Bull, 392 Beall, 540—Skinner, 541, 635—Russell, 571—Theilmann, 584, 713—Mercer, 643—Dibbern, 743
Truth about honey.....Gebring, 452
Two colonies in one hive .....Harvey, 412
Two queens in a hive.....Harrison, 295—Hone, 395

Uncapped sections.....Doolittle, 201
Uncapping honey, 36, 307.....Durham, 172—Hill, 204—Dorsey, 427 .....Tefft, 569
Under the whispering leaves —poem..Chaddock, 696
Unfinished sections, 108, 682 .....Coppin, 695
Uniting colonies, 245..Axtell, 10—Eidemiller, 11 Hershiser, 313—Ware, 475—Dahn, 500—Flory, 539—Harrison, 631—Craycraft, 696—Doolittle, 711
Unwired combs .....Demaree, 698

Varieties of clover..Wooodward, 764—Harrison, 764
Ventilating bee-cellars, 41, 741...Theilmann, 11, 121—Whitmer, 137—Miller, 231.....Sisson, 267
Ventilation of hives 71, Doolittle, 10, Brokaw, 27 Secor, 280, Tefft, 346, 468, Parcher, 651, Gehriog, 712
Visits to bee-keepers.....House, 712—Sherman, 829

Water for bees .....Harrison, 296
Water in honey and cells, 53, 374.....Patterson, 426
Wax-extractors .....Sherman, 829
Weather 404, 436
Weeds.....Dibbern, 601
Weighing and mixing honey..... 799
Weighing bees... .....Lymnn, 251—Phin, 551
What and why of agriculture..... 533
What makes the summer?—poem.....Holley, 470
Who keep bees, 5..... ....Holtermann, 139
Why bees desert hives..... 484
Width of hives..... 108
Wild bees.....Becker, 108
Wing-strokes in a second..... 580
Wintering bees..22, 297, 681—Doolittle, 38—Bingham, 44—Snow, 44—Holtermann, 56—Larrabee 75—Axtell, 91—Whitmer, 137—Beath, 168—Latham, 281, 648—Tyrrel, 295—Syphrit, 298—Hershiser, 328—Muth, 601, 629—Duff, 602, 755 Shuck, 615—Lighty, 650—Hawkins, 652—Cook, 677—Vannoy, 696—Gehring, 712—Craycraft, 714—Robinson, 726—McKnight..... 817
Wintering bees in the South.....Craycraft, 678
Winter song —poem 74
Winter stores, 827 .....Holtermann, 56—Church, 60
Winter work..... Dibbern, 67
Wisdom of bees .....Weck, 105
Woman's success with bees.....Thompson, 460
Women as bee-keepers.....Stiller, 777—Buller, 817
Wooden combs.....Cook, 615—Aspinwall, 649, 708
Worker-cells changed to drone-cells..... 485
Worker-comb, 133.....Newman, 599
Work in the apiary .....Duff, 582
World's Fair .....Aspinwall, 580—Holtermann, 771
Worship in the woods — poem.....Diehl, 757
Young queens .....Kouba, 27—Pratt, 537
Zinc honey-tank..... 355

ILLUSTRATIONS.

Alsike clover..... 248
Apiary of J. M. Young 309
Apiary of Walter Harmer..... 277
Apis Dorsata combs 344
Australian Apiary..... 405
Bee-killers, armed flies, etc..... 181
Bees are swarming..... 552
Bull, T. S..... 273
Climbing after Apis Dorsata..... 343
Coal palace 613
Cook, Prof. A. J..... 5
Coverdale bee-escape..... 798
Davis honey-carriage..... 468
Detroit Exposition building..... 389
Dibbern bee-escape..... 798
Doolittle, G. M..... 260
Glands of bees 375
Greiner's alighting-board 452
Honey-sections..... 468
Huber, Francis..... 437
Hutchinson, W. Z..... 229
Microscope 84
Milk-weed (*Asclepias*). 566
Nye begins to get restless..... 551
Packed hive for winter..... 648, 649
Pittsburgh Exposition building..... 549
Pittsburgh machinery hall..... 549
Plant-louse 444
Pratt's queen-rearing apiary..... 661
Pratt's queen-rearing hive..... 778
Reese bee-escape..... 727, 739
Roese, Rev. Stephen..... 212
Rooster of the Bee-Keepers' Union 421
Root, A. I..... 117
Secor, Eugene..... 150
Sioux reservation..... 549
Spokane Falls, Wash. Ter..... 549
Stingless bees..... 387
Straw mats for hive 615
Sweet clover 59
Uncapping machine 36
Washington and his successors..... 293
When the bees have ceased to swarm..... 552

CORRESPONDENTS.

Abbott, Rev. E. T. 169
Abbott, L. F. 60, 73, 170, 184, 564, 631
Adair, Frances, 227
Afflerbaugh, N. W. 11
Ahlborn, Louis, 524
Aiken, R. C. 93
Aldrich, P. M. 587
Alley, Henry, 35, 43, 483, 579, 707, 744, 795
Alton, A. M. 248
Anderson, Mrs. Martha, 166, 555
Anderson, N. C. 747
Anderson, T. A. 27, 604
Anderson, Wm. 428
Andre, J. H. 42, 215
Andrews, John, 275, 362
Andrews, W. H. 12, 51
Andrews & Lockhart, 132, 140
Armstrong, J. C. 548
Arnold, Geo. 296
Arnold, I. N. 444, 540, 556
Ashby, G. H. 27, 61, 663, 763
Aspinwall, John, 84, 164, 179, 389, 580
Aspinwall, L. A. 649, 708
Aten, A. C. 134, 360
Ault, A. E. 40
Auringer, Geo. H. 252, 587
Avery, John B. 93
Axtell, Mrs. L. C. 10, 91, 116, 172, 220, 371, 627

Balch, A. C. 11
Baldwin, A. A. 134
Baldwin, B. T. 571
Baldwin, L. W. 99
Barb, B. F. 172
Barb, J. S. 316, 745
Barber, C. D. 28, 330, 731
Barber, Ira, 202, 804
Barclay, W. S. 697
Barker, Dayton E. 121
Barnes, W. A. 310
Barnhart, Samuel, 136
Barnum, W. M. 179, 484
Barrows, O. B. 252, 268, 427, 695
Bates, P. J. 61
Beall, Wm. 540, 547
Beath, Jos. 156, 168
Bechtold, J. C. 747
Bechly, Fred, 42
Becker, O. C. 108
Becktell, R. S. 108
Bell, N. M. 484
Bence, J. A. 348
Benedict, Aaron, 508
Bertrand, Ed. 467
Betsinger, N. N. 132, 156
Betten, Miss Helen, 331
Bingham, J. H. 44
Bingham, T. F. 22, 186, 376, 758
Bittenbender, J. W. 652
Bixler, Chas. K. 171, 268, 396
Black, Alex. 100
Black, S. N. 492
Blackhall, J. 219
Blades, R. P. 45, 236, 460
Blanken, John H. 731
Blodget, John, 587, 748
Boerstler, John, 108, 268, 315, 380, 588, 652, 716, 780
Boker, Geo. H. 454
Booth, John, 12
Bowen, S. E. 411
Bowman, H. S. 156
Boyles, J. E. 804
Brader, C. H. 28
Bradish, C. W. 44
Bramlet, H. 56
Bray, Moses, 748
Bray & Seacord, 44
Brickey, Peter, 779
Briggs, Mrs. B. 485
Briggs, E. 395, 460
Brillhart, S. B. 236
Bristline, Dr. G. W. 636
Broadhead, John, 43
Brokaw, Lionel, 27, 236, 331
Brooks, J. E. 12
Brown, Arthur F. 635
Brown, Jas. E. 251
Brown, J. Few, 571
Brown, J. H. 60
Brundage, Thos. B. 92
Bryant, Wm. C. 387
Buck, D. C. 38
Bull, Joshua, 45, 380, 392, 776
Buller, Henrietta F. 817
Bump, Edwin, 12
Bunch, C. A. 9, 199, 378, 419, 763
Burgess, C. M. 163
Burgess, S. H. 479
Burtch, J. M. 636
Burton, S. 219, 395, 427

Caldwell, J. V. 219, 460
Campbell, E. C. 218, 376
Campbell, R. H. 204
Canndy, T. R 92
Capser, Caspar, 331
Carter, B. F. 203
Carver, Robt. 572
Castle, H. D. 662
Cavazza, E. 492
Chaddock, Mrs. M. B. 90, 134, 179, 580, 696
Chandler, L. 474
Chapman, Justus, 435
Cheasbro, L. D. 108
Christie, J. H. 652
Church & Son, S. J. 51, 60, 298
Clark, Edward, 539
Clark, J. M. (Colo.) 123
Clark, J.M. Mich. 200, 732
Clark, J. W. 731
Clark, Z. A. 291
Clemmons, Noah, 45, 556
Coffin, Mark, 220
Cohoon, E. B. 236
Collier, P. P. 588
Collins, E. H. 104, 595
Collins, J. W. 156, 429
Colwick, J. N. 283
Compton, O. S. 467
Comstock, J. L. 411
Conner, C. W. 588
Cook, Prof. A. J. 84, 147, 195, 216, 340, 355, 358, 364, 371, 375, 387, 420, 442, 523, 524, 611, 615, 647, 660, 677, 762, 832.
Coombs, E. M. 699
Cooper, J. C. 699
Copelend, Jacob, 44
Coppin, Aaron, 695
Coreell, S. 819
Cory, Wm. G. 187
Costellow, C. W. 249
Councelman, F. 603
Councilman, E. W. 108, 412, 456
"Country Bee," 90
Coverdale, Frank, 60, 107, 396, 426, 619, 697, 744, 801, 764
Cowan, Anna L. 451, 691
Craycraft, John, 636, 678, 696, 714, 778
Crookleton, E. J. 394, 748
Crotzer, A. S. 315
Crouley, Wm. 72
Crumrine, David, 204
Cullinan, W. J. 289, 315
Cullison, Dr. M. R. 268, 327
Cumins, A. W. 492
Cunningham, H. A. 364
Cushman, Samuel, 360
Cutting, H. D. 524

Dadant & Son, Chas. 4, 99, 172, 228, 264, 311, 393, 488, 580, 715, 796
Daggett, S. E. 44
Dahl, Rev. T. H. 202
Dahn, N. A. 500
Dakin, A. K. 684
Daniher, D. D 699
Dare, Ella, 440
Darling, Isaac, 61
Dart, R. 678
Davenport, B. T. 716
Davidson, G. F 300, 636
Davis, John B. 475
Davis, W. J. 138
Day, A. M. 412
Delamater, J. A. 140
De Luycens, G. 796
Demaree, 54, 328, 505, 698
Desquartiers, M. 99
Detwiler, John Y. 420
Dewar, John, 428
De Witt, John, 532
Dibbern, C. H. 3, 67, 164, 275, 371, 411, 440, 472, 601, 611, 612, 634, 743, 779, 797
Dickinson, E. L. 311
Dickson, C. W. 603
Diehl, E. H. 757
Dierdorff, H. 747
Donoho, Wm. H. 725
Doolittle, G. M. 9, 38, 57 67, 88, 106, 137, 183, 201 232, 246, 260, 276, 323, 325 340, 359, 391, 409, 439, 453 456, 470, 483, 487, 504, 519, 540, 553, 570, 581, 599, 663, 711, 728, 775, 812
Dorsey, Mrs. Ada, 427
Doudoa, J. M. 316, 403
Dougherty, D. W. 108
Douglass, W. S. 604
Dow, Chas. E. 61, 668
Dow, C. W. 45
Dowell, Jos. 156
Downing, W. B. 214
Drane & Son, E., 77
Drew, Wm. L. 329
Dubini, Dr. Angelo, 796
Duff, A. H., 582, 602, 643
Duncan, A. J. 108, 538
Dunlap, A. H. 698
Dunlap, J. B. 268
Durham, Henry, 172
Duvall, C. D., 276
Dyke, K. A. 204

Easley, S. M. W. 761
Eastwood, L. 60
Eaton, F. A. 116, 316, 668
Eckman, J. W. 379
Edsall, J. N. 651, 707
Edwards, T. M. 140, 331

Ehl, Peter, 732
E. H. R. 548
Eidemiller, Geo. H., 445
Eikenberry, J. F. 475, 653
Ellingwood, A. D. 732
Elliston, R. A. 389
Elliott, Wm. 699
Elwood, P. H. 99, 211, 235
Emery, D. E 643
Enke, Wm. 379
Erkel, F. C. 87, 308, 474
Eskew, J. R. 355
Eubank, J. N. 156
Ewing, E. E. 315, 764

Fairbanks, V. W. 580
Faucett, H. P. 699
Fennell, Jas. F. 330
Ferree, Locke, 620
Fisher, A. J. 12
Fisher, A. W. 204
Fisher, T. Garion, 299
Fletcher, W. H. 451
Flint, Joel, 699
Flint, Jos. L. 45, 315
Flick, Geo. W. 572
Flory, Samuel, 300, 539
Forbes, V. N. 412
Ford, Wm. H. 140
Forgan, P. L. 619
Foss, A. J. 628
Fowler, W. H., 92, 620
Fox, Dr. D. R. 429
Fox, Mrs. I. B. 747
Franklin, Benj. 668
Fritts, C. B. 741
Fritz, B. F. 27
Funk, Jos. 61
Fuller, D. A. 107
Fuller, J. F. 378

Gale, Geo. 427
Gale, Mrs. H. A. 300
Gallup, E. 52
Gardiner, C. 60
Gehring, Rev. J. D. 327, 452, 712, 739
Gerhart, Louis, 11
Gerrard, Julius, 516
Gifford, H. C. 155, 460, 571
Gile, J. F. 420
Glass, I. J. 88
Good, I. R. 547
Goodale, S. A. & M. A. 76
Goodell, C. A. 77, 268
Goodrich, J. D. 275
Gould, Wm. E. 153
Graden, Randolph, 166
Graham, Mrs. F. 746, 758
Graham, J. G 116
Gravener, H. S. 77
Gravenhorst, C. J. H. 227
Graves, E. F. 120, 312
Graves, L. B. 428
Graves, W. H. (Ills.) 11, 364, 804
Graves, W. H. (Iod.) 251, 588
Gray, J. L., 188
Greeley, A. W. 51
Greiner, F. 220, 395, 452, 584, 699, 727
Gressman, H. F. 684
Grimm, C. 695
Grimshaw, R. A. 759
Grinnell, E. W., 474
Gross, G. A. 186
Guenther, John H. 283
Guilford, C. 715

Hang, H. W. 420
Hackman, H. S. 476
Hager, Jr. John, 445
Hambaugh, J. M., 798
Hammerschmidt, L. 603
Hanbury, T. E. 583
Hand, M. C. 200
Handel, John, 140
Hanson, Geo. W. 445, 524
Harbison, J. S. 628, 634
Harmer, W. 277, 548
Harrington, F. H. 93
Harris, W. A. 636
Harris, W. S. 20
Harrison, H. E. 43
Harrison, Mrs. L. 4, 23, 40, 52, 132, 185, 266, 281, 295, 315, 363, 371, 457, 486, 536, 548, 567, 631, 649, 707, 746, 764
Hart, W. S. 267, 404, 476
Harte, Bret, 508
Harvey, F. W. 412
Haskin, S. D. 268, 316, 331, 363, 427, 492
Haskins, John, 299, 396
Hatfield, A. J. & E. 445
Havee, E. G. 195
Hawk, Z. T. 27, 710, 736
Hawkins, O. R. 572, 652, 715
Hawn, Judge L. 652
Haworth, J. L. 92
Hater, J. N. 155
Heaton, I. J. 11
Heckman, H. G. 428
Heddon, Jas. 20, 24, 259, 296, 439, 472, 538, 547, 600, 764, 811
Heidenescher, Jr. H. 27
Hellems, C. W. 412
Henderson, L. D. 780
Henderson, W. P. 668
Henkle, E. 27
Henley, Mrs. W. T. 251
Henry, C. P. 283, 359
Hentrick, F. 220
Henwood, W. R. 227
Herron, I. S. 44
Hershiser, O. L. 312, 324, 328, 376, 388, 392, 396, 410, 515
Hewes, Wm. G. 247
Hewett, C. P. 396
Heyd, C. B. 814
Hiatt, E. J. 474
Hicks, Dr. J. M. 186, 316, 393, 458, 553, 611, 729
Hill, David, 709, 715
Hill, H. E. 204, 556, 764
Hill, L. T. 540
Hill, Wm. 45
Hillman, Jos. 93
Hills, C. B. 727
Hilton, Geo. E. 7, 152, 203, 441, 474, 507
Hines, Thos. O. 155
Hodge, W. A. 188, 268, 329, 363, 412, 459
Hodges, Geo. 188
Hoey, Thos 651
Hoke, Abe, 92, 252
Holding, A. 203
Holley, Marietta, 470
Hollister, N. M. 220
Holtermann, R. F. 41, 56, 70, 116, 138, 216, 267, 355, 535, 707, 739, 711, 833
Hone, F. 395
Hood, W. 521
Horton, I. C. 156
Houk, Annie W. 388
House, Miss Ida, 423, 471, 585, 712
Hovis, S. H. 216
Howe, G. D. 515
Howell, Geo. P. 537, 603
Hubbard, G. K. 104, 132, 166, 389, 404
Huff C. A. 20, 413, 563
Hughes, H. L. 227
Hunt, Rev. John, 109
Hunter, Rev. J. N. 340
Hutchinson, W. Z. 7, 22, 67, 342, 425, 506, 596, 679, 694, 772, 813, 829
Hyle, Henry A. 76

Iiams, Byron, 100, 412, 679
Israel, E. 291

Jackson, Mrs. O. F. 60
Jaggard, Jas. 444, 524
Jardine, Jas. 93, 427, 571
J. B. 99
Jenkins, J. M. 55
Jenninga, Aaron, 651
Johnson, D. D. 28, 715
Johnson, F. N. 92
Johnson, F. S. 362, 471, 539
Johnson, Newton, 348
Johnson, Sanders, 300
Jordan, E. C. 179, 244

Kanzler, Fred, 395, 519
Keeney, E. D. 760
Kellen, T. 437, 763
Kelley, S. M. 268
Kelly, G. 108
Kennady, D. Y. 124, 474
Kennecott, W. F. 371
Kennedy, S. B. 645
Kerr, John, 172
Kessinger, Mrs. L. 502
Kettering Gustavus, 411
Keynton, John, 356
Kincaid, Jas. 124, 252
King, J. A. 93
King, John A. 283
King, Jr. Samuel, 12, 219
King, W. V. 445
Kinsel, T. F. 364, 523
Kirkpatrick, G. H. 89, 155
Knapp, H. H. 474
Knight, Bruce, 507
Koehler Louis C. 742
Koonze, Chas. 566
Kouba, A. V. 27
Krahl, John, 476
Kromm, F. J. 247, 748
Kruschke, H. O. 249, 629, 692
Kyber, G. E. T. 11

Lamkin, A. W. 316
Lane, R. D. 390
Langdon, Lucy, 522
Langstroth, Rev. L. L. 180
Larrabee, J. H. 75, 77, 227
Lashier, D. F. 780
Latham, Allen, 219, 281, 339, 648, 698, 677, 694
Latham, J. F. 10, 168, 282, 454, 460
Lawton, J. R 300
Leach, A. L. 187
Leach, D. C. 668
Lee, B. B. 484
Lee, Fayette, 429, 620
Lee, J. C. 827
Leers, Dr. W. 28
LeRoy, Alex. 468
LeRoy, J. W. 587
Lewton, Allen, 179
Lighty, L. W. 362, 650
Lind, A. H. 379, 745
Lindsey, C. V. 28
Link, H. 124
Liston, E. 404
Livingston, Mrs. B. J. 54, 152, 620
Lobeck, Rev. L. 299
Lockhart, F. A. 41
Longfellow, H. W. 36, 243, 421, 833
Loomis, A. C. 45, 396, 652
Lord, A. D. 185
Lossing, Wm. 297, 445
Luggar, Dr. Otto, 566
Lyles, E. W. 699
Lyman, Ira N. 93, 251, 299, 380, 394, 603
Lyndon, Emma, 597
Lyon, Hugh L. 764

McConoughey, F. 234
McCoy, G. G. 668
McDaniel, J. M. 668
McDonald, F. H. 60
McFatridge, P. W. 476
McGuire, G. W. 104
McIntyre, J. F. 246
McIntyre, J. S 444
McKeon, John, 520, 531
McKinney, Dr. W. J. 486, 616, 710
McKown, C. W. 172, 492
McKnight, R. 100, 148, 483, 504, 817
McLain, Prof. N. W. 566
McNeill, J. 292, 330, 564
McPherson, B. G. 780

Macpherson, F. H. 820
Maker, Orrin, 331
Maley, A. E. 259
Mallery Albert, 699, 731
Malone, Wm. 188
Manchester, J. H. 326
Manley, B. A. 300
Margileth, Edward, 330
Markham, W. D. 379
Marquis, T. N. 77
Marsh, J. A. 140
Martin, W. H. 699
Mason, Dr. A. B. 103, 148, 195, 214, 233, 324, 329, 520, 660, 739, 755, 756, 815
Mason & Sons, J. B. 211
Mason, W. 105
Mathews, R. J. 804
Matney, Jas. A. 44
Meeker, E. F. 44
Mercer, L. E. 628, 643
Mercer, Nathan, 236, 764
Merritt, F. M. 44
Meyer, A. 579
Millard, D 314, 412, 445
Miller, Dr. C. C. 52, 86, 151, 198, 229, 231, 279, 315, 554, 772, 774
Miller, J. M. A. 92
Miller, M. 500
Miller, Marion, 413
Miller, S. E. 39, 459
Miller, W. H. 140
Miner, O. P. 60, 652
Minthorn, Mrs. P. W. 507
Moerch, Julius, 580
Moller, John, 508
Montague, D. A. 586
Montgomery, J. P. 444
Moore, W. L. 661
Morgan, H. 475
Morgan, Geo. W. 356
Moriah Ctr. Mill Co. 429
Morris, Geo. W. 92, 300
Morris, O. M. 235
Morris, S. R. 297
Morrison, Dr. S. W. 93, 535
Mosely, H. C. 364
Moser, Jos. 540
Mott, Chester A. 425
Mudgett, Fred J. 44
Mulvany, T. J. 341, 664
Murray, Ray, 323
Muth, C. F. 601, 629
Muth-Rasmussen, W. 628
Myers, I. E. 259, 460

Nebel & Son, J. 204, 508, 587
Nelson, Jas. A. 61
Neve, Henry, 330
Newlin, Milton, 475
Newman, J. H. 599
Newman, Thomas G. 442, 660, 680, 683, 724, 803, 814
Norton, J. G. 77
Norton, S. R. 419, 452, 588
Null, Mrs. J. M. 635
Nye, Bill, 551

O'Dell, L. D. 124
Ogden, Geo. W. 109
Oldfield, Wm. 475
Olney, G. B. 620
O'Neill, Nellie F. 376
Osborn, C. 180
Oswalt, Jacob, 188
Ott, Adolph, 331
Owens, J. J. 644
Palliser, F. E. 453

Palmer, S. G. 60
Parcher, R. E. 651
Park, D. F. 396, 540
Parsons, C. C. 524
Patterson, Henry, 426
Pearce, J. A. 387
Pearson, W. 27
Pearson, Wm. 172
Peck, B. W. 316
Peck, J. M. 348
Peck, S. M. 564
Peck, W. S. 228
Pemberton, Clarkson, 124
Pettit, S. T. 70, 217
Petty, W. T. F. 410
Phelps, C. W. 77
Pheniele, C. A. 715
Phin, Prof. John, 551
Pickett, Abner, 92
Pierce, Sylvester, 699
Pierce, Thos. M. 308
Poindexter, Jas. 345
Pond, J. E. 250, 266, 377, 435, 440, 457, 583, 595
Poppleton, O. O. 677
Porter, Robt. P. 388
Pratt B F. 635
Pratt, E. L. 537, 597, 650, 653, 659, 661, 684, 731, 778, 800
Pratt, J. M. 507, 684
Pratt, S. B. 517
Princess, Christian, 420
Pringle, Allen, 72, 149
Proctor, Dr. J. A. 284
Purvis, L. G. 731

Quigley, E. F. 268, 742
Quinn, Vincent, 77

Randall, A. F. 675
Rau, Samuel, 199
Rauchfuss, Frank, 572
Ray, Wm. B. 315
Rebholz, M. 475, 539
Reed, L. G. 476
Reese, John S. 58, 714, 739
Reichard, Levi, 316
Renoie, E. A. 355
Reynolds, F. B. 684
Reynolds, Thos. B. 204
Rexford, Eben E. 324, 458
Rhodes, A. M. 76
Ricard, Edgar, 651
Rich, John K. 268, 684
Rich, S. W. 4
Richards, M. 297
Richards & Co. J. 508
Richardson, P. M. 427
Richardson, W. T. 628
Richie, Judge, 279
Rickenbacher, J. A. 27, 748
Richter, Wm. 156, 628
Ridout, C. G. 109, 195, 203, 268, 364
Riley, Jas. W. 294
Ritter, M. M. 460
Robbins, Alfred, 20
Robbins, Daniel E. 28, 668
Robbins, G. F. 219, 423, 460
Robertson, J. H. 298
Robinson, C. D. 444
Robinson, C. J. 586, 632, 667, 726, 747, 762, 828
Robson, Wm. 236
Roese, Rev. S. 43, 212, 218, 252, 267, 380, 428, 508, 555, 598, 633, 763, 777, 803
Rogers, H. J. 55
Rogers, I. N. 364
Root, A. I. 19, 435, 453, 516
Root, E. R. 117, 660, 830
Root, W. P. 437
Rose, Alex. 758
Rosebrock, H. H. 684. 732
Rosebrough, D. R. 188, 499, 764
Rosenberger, G. W. 745
Rosser, R. A. 12
Rouse, H. L. 43, 102
Rouse, J. W. 775
Rowe, W. H. 330
Rowe, W. M. 60
Rummel, R. A. 188
Rusk, Hon. J. M. 291
Russell, E. R. 651
Russell, R. S. 123, 571, 604, 777
Ryan, R. R. 155

Salisbury, F. A. 19
Sample, J. R. 428
Sanders, J. 628
Sanders, J. W. 445, 556
Sanford, A. C. 583
Sanford, T. S. 723
Sanger, A. F. 396
Sapp, C. H. 115
Saxe, John G. 646
Schacht, Lemcke & Co. 147
Schaeffle, E. H. 633
Schafer, Geo. 11
Schell, G. D. 61
Scherer, J. H. 28, 220
Scheuring, Paul, 633
Schnerr, Lewis, 268
Schrer, C. 156
Schroeder, Jr. Alex. 60
Schultz, Robt. 236, 684
Scott, Geo. G. 364
Scott, Jas A. 205
Scott, Jerry, 731
Secor, Eugene, 45, 101, 150, 231, 279, 280, 326, 355, 456, 501, 554 585, 695, 707, 713, 772, 828
Seeley, H. M. 77, 219, 268, 330, 396, 636
Selden, Frank, 296
Shafnit, W. A. 44
Shafnit, Mrs. W. A. 664
Shaner, W. H. 445
Shaver Jos. E. 299, 804
Sheets, B. F. 179
Sheldon, Daniel, 636
Shelly —, 340
Sheridan, P. 364
Sherington, A. 12, 364, 603
Sherman, Lucy J. 571, 620, 829
Shimer, I. H. 396
Shirer, Green R. 380
Showers, E. M. 315, 540
Shuck, J. M. 615
Shuck, S. A. 28
Simpson, A. R. 411
Sisson, H. B. 267
Sisson, H. L. 203
Skinner, B. A. 596
Skinner, Alonzo, 541, 635
Sleeper, S. S. 524, 538
Smith, A. W. 395. 524, 731
Smith, E. E. 171, 475
Smith, E. J. 603, 731
Smith, H. 298
Smith, Miss Ida, 57, 183
Smith, John G. 331
Smith, Martha, 556
Smith, Mrs. M. J. 267
Snow, Samuel, 44
Socks, Wilyum, 728
Soverhill, S. G. 492
Sperling, A. 27
Spitler, Geo. 28, 268, 764
Spitzka, Dr. C. E. 499
Spradlin, L. W. 531
Stachelhausen, L. 119, 377
Stahl, E. 410
Staininger, N. 315, 572
Staley, H. K. 154, 616
Standish, B. H. 476
Stanley, Thos. C. 764
Stark, Henry, 435
Steddom, W. C. 428
Stewart, Leslie, 220
Stitson, J. W. 691
Stockwell, G. A. 379, 424, 458
Stokesberry, R. R. 548
Stolley, Wm. 83, 119, 523, 715
Stoner, Joe E 92
Stordock. C. H. 315
Stout, Lemuel, 236
Stout, W. 92
Strong, E. 43, 102, 438
Student, 234
Styan, W. 292
Styer, E. R. 42
Swaner, J. C. 59, 330
Sweet, Alice, 502
Sword, B. F. 571
Syphrit, 298

Tailor, M. 251
Tate, R M. 204
Tate, W. R. 587, 747
Taylor, B. 124, 308
Taylor, R. L. 8
Tefft, J. W. 346, 379, 473, 568
Theilmann, C. 11, 121, 218, 348, 364, 396, 419, 584, 708, 713
Thomas, C. F. 500
Thompson, Mrs. Annu, 460
Thorne, W. B. 619
Thornton, John A. 91
Tibbetts, Geo. F. 804
Tinker, Dr. G. L. 25, 74, 100, 155, 490, 556
Toney, B. B. 331
Transue, Geo. L. 204
Tucker, R. L. 395, 427, 508
Tucker, Vet, 427
Turner, J. E. 92, 268, 699
Twining, Dana, 57
Tyrrel, A. C. 25, 295

Van Deusen & Sons, J. 220, 587
Vance, Dr. J. W. 458
Vanooy, A. M. 569, 596, 684, 696
Van Tress, Henry, 620
Vogl, M. 451
Volkering, B. 475
Vought, Albert, 100, 401

Waldo, L. J. 300
Walker, Chas. 250
Walker, J. E. 135, 699
Walker, T. 172
Wallace, Thos. S. 204
Ward, Hiram J. 411
Ware, Judge, 475
Waring, Frank, 236, 396
Warner, Jacob H. 47
Watkins, S. L. 12, 220, 742
Way, J. L. 204
Waymun, L. 124, 476
Webb, C. F. 122
Webster, F. M. 644
Weck, Philip, 105
Weckesser, C. 172, 189, 268, 587
Weed, C. M. 316, 524
Wellington, J. H. 339
Wendelken, Gerd, 139
Wentworth, L. W. 4
Wescott, S. E. 93
Weston, Arthur H. 236
Wheeler, A. F. 156, 732
Whitford, G. M. 364
Whiting, L. C. 565
Whiting, T. C. 43, 411
Whitmer, Daniel, 137
Whitney, Rev. W. R. 27
Wiele, C. H. 487
Wler, D. B. 711
Wilcox, F. 500
Wilcox, J. B. 380
Wilcox, J. W. 515
Wilkins, C. W. 779
Willard, J. S. 77
Williams, L. R. 475
Williams, Judge S W. 406
Williamson, J. A. 330
Willson, Henry, 116, 411
Wilson, A. W. 196
Wilson, C. N. 628
Wilson, J. T. 330
Wilson, Samuel, 115
Winslow, H. B 603
Withey, W. S. 275
Wolcott, Wm. C. 11
Wood, Jas. F. 424, 467
Woodman, N. M. 12
Woodward, C. E. 28, 39, 636, 764
Woodward. Dr. R. B. 684
Woodward, W. M. 632, 747
Woolfolk, J. L. 747
Wortman, A. 685
Wright, W. D. 483
W. S. N. 247
Wuerzer, Adolph, 43
Wylie, W. P. 215
Wyss, Daniel, 60

Yocom, C. E. 644
York, G. W. 137, 200, 228, 613
Young, Jennie A. 251
Young, J. M. 92, 309, 316, 444
Young, Will M. & L. S. 644
Youngman, S. J. 236, 248, 444, 492

Zimmermann, J. C. 476
Zink, W. T. 11

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1889. *Time and Place of Meeting.*

Dec. 26, 27.—Michigan State, at Lansing, Mich.
H. D. Cutting, Sec., Clinton, Mich.

1890.

Jan. 8, 9.—Ontario, at Belleville, Ont.
W. Couse, Sec., Streetsville, Ont.

Jan. 15.—Indiana State, at Indianapolis, Ind.
Geo. C. Thompson, Sec., Southport, Ind.

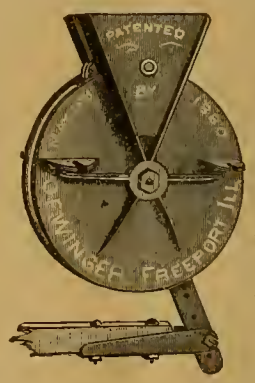
Jan. 20.—Colorado State, at Denver, Colo.
E. Milleson, Pres., Denver, Colo.

Jan. 22.—Vermont State, at Burlington, Vt.
J. H. Larrabee, Sec., Larrabee's Point, Vt.

Feb. 5-7.—New York State, at Rochester, N. Y.
G. H. Knickerbocker, Sec., Pine Plains, N. Y.

May 3.—Susquehanna Co., at Hopbottom, Pa.
H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.



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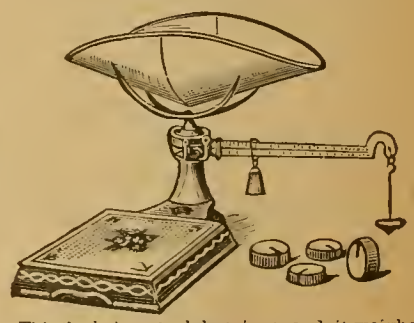

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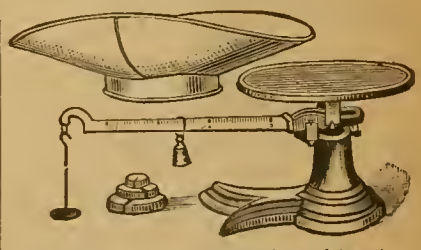

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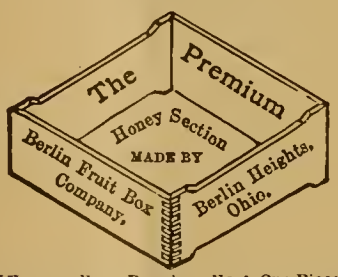

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